Cisco CCNP 642-813 Exam

Vendor : Cisco

Exam Code: 642-813

Exam Name: Implementing Cisco IP Switched Networks

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QUESTION 1

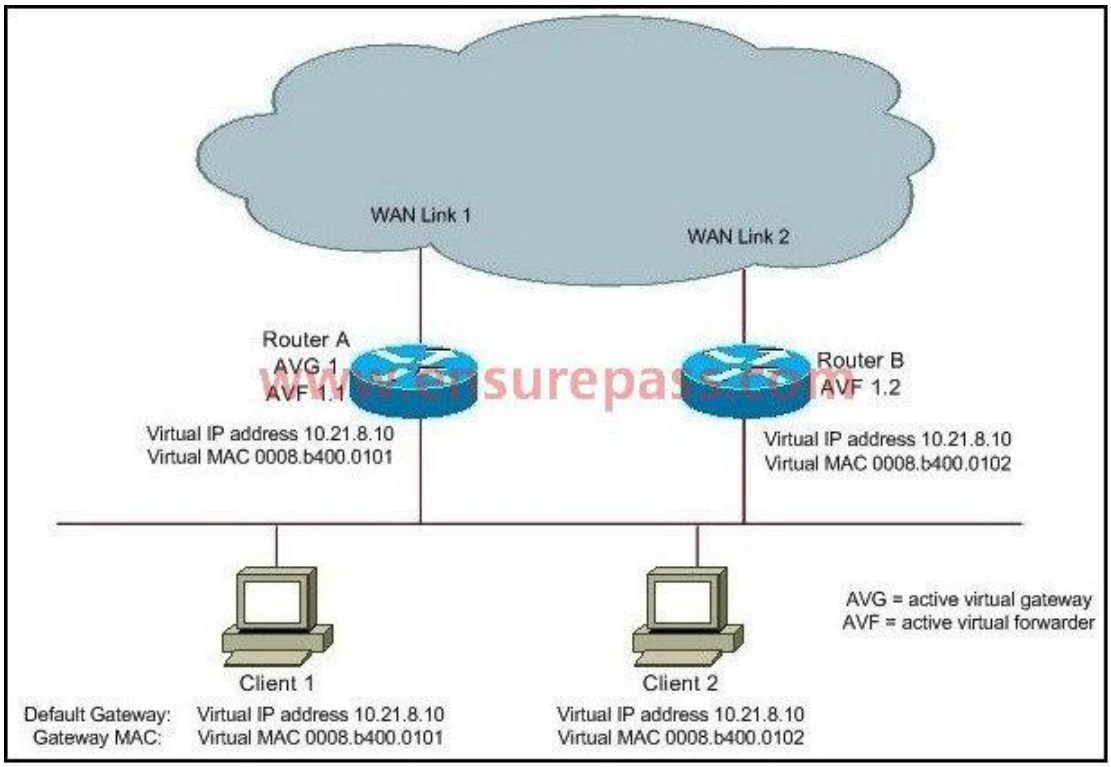
Which statement is true about RSTP topology changes?

A. Any change in the state of the port generates a TC BPDU.
B. Only nonedge ports moving to the forwarding state generate a TC BPDU.
C. If either an edge port or a nonedge port moves to a block state, then a TC BPDU is generated.
D. Only edge ports moving to the blocking state generate a TC BPDU.
E. Any loss of connectivity generates a TC BPDU.

Correct Answer: B

QUESTION 2

Refer to the exhibit. Which four statements about this GLBP topology are true? (Choose four.)

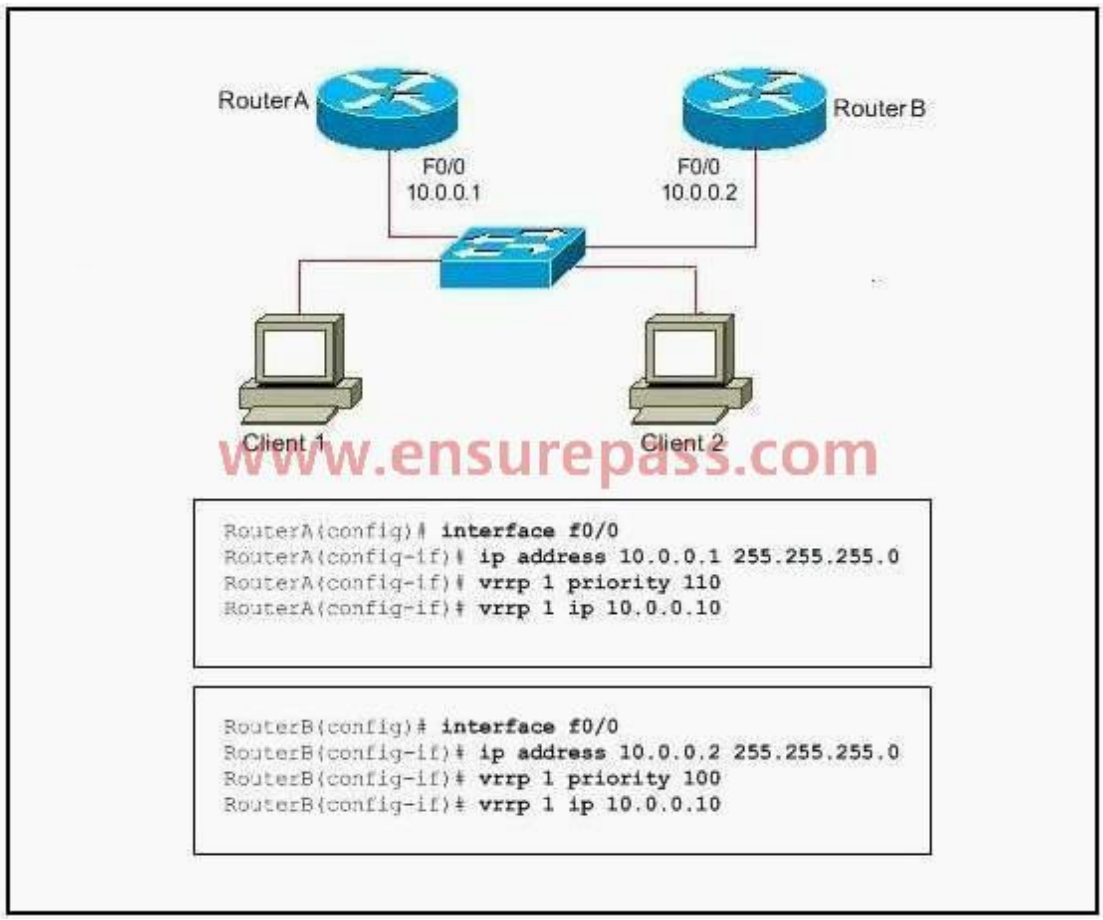


A. Router A is responsible for answering ARP requests sent to the virtual IP address.
B. If router A becomes unavailable, router B forwards packets sent to the virtual MAC address of router A.
C. If another router is added to this GLBP group, there would be two backup AVGs.
D. Router B is in GLBP listen state.
E. Router A alternately responds to ARP requests with different virtual MAC addresses.
F. Router B transitions from blocking state to forwarding state when it becomes the AVG.

Correct Answer: ABDE

QUESTION 3

Refer to the exhibit. Which VRRP statement about the roles of the master virtual router and the backup virtual router is true?



A. Router A is the master virtual router, and router B is the backup virtual router. When router A fails, router B becomes the master virtual router. When router A recovers, router B maintains the role of master virtual router.

B. Router A is the master virtual router, and router B is the backup virtual router. When router A fails, router B becomes the master virtual router. When router A recovers, it regain the master virtual router role.

C. Router B is the master virtual router, and router A is the backup virtual router. When router B fails, router A becomes the master virtual router. When router B recovers, router A maintains the role of master virtual router.

D. Router B is the master virtual router, and router A is the backup virtual router. When router B fails, router A becomes the master virtual router. When router B recovers, it regain the master virtual router role.

Correct Answer: B

QUESTION 4

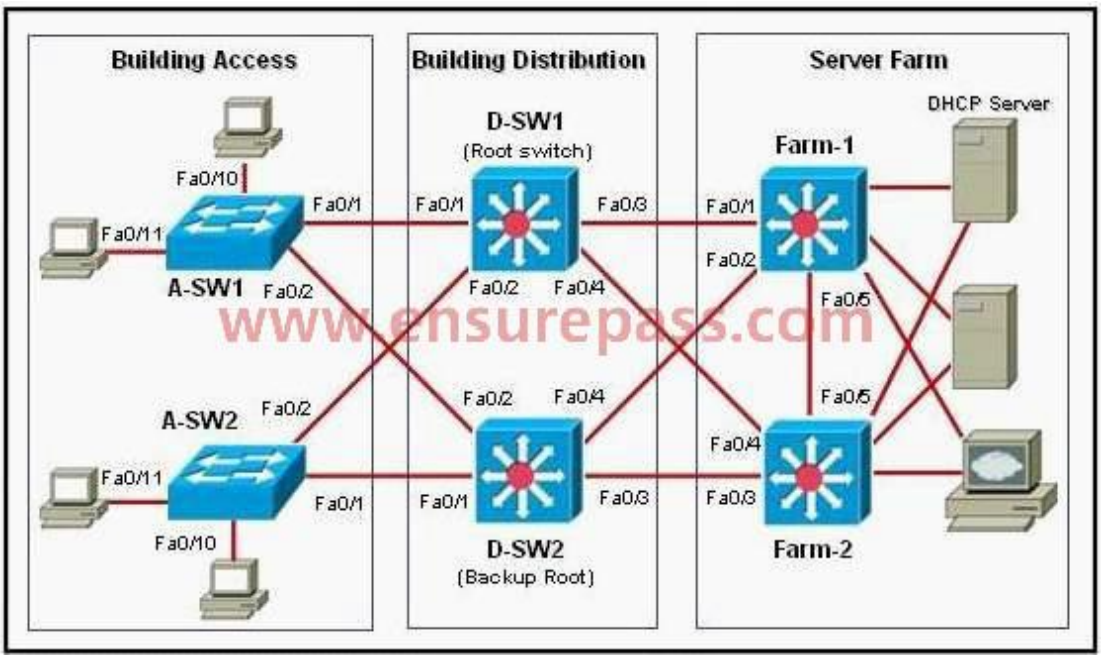
Which description correctly describes a MAC address flooding attack?

A. The attacking device crafts ARP replies intended for valid hosts. The MAC address of the attacking device then becomes the destination address found in the Layer 2 frames sent by the valid network device.
B. The attacking device crafts ARP replies intended for valid hosts. The MAC address of the attacking device then becomes the source address found in the Layer 2 frames sent by the valid network device.
C. The attacking device spoofs a destination MAC address of a valid host currently in the CAM table. The switch then forwards frames destined for the valid host to the attacking device.
D. The attacking device spoofs a source MAC address of a valid host currently in the CAM table. The switch then forwards frames destined for the valid host to the attacking device.
E. Frames with unique, invalid destination MAC addresses flood the switch and exhaust CAM table space. The result is that new entries cannot be inserted because of the exhausted CAM table space, and traffic is subsequently flooded out all ports.
F. Frames with unique, invalid source MAC addresses flood the switch and exhaust CAM table space. The result is that new entries cannot be inserted because of the exhausted CAM table space, and traffic is subsequently flooded out all ports.

Correct Answer: F

QUESTION 5

Refer to the exhibit. An attacker is connected to interface Fa0/11 on switch A-SW2 and attempts to establish a DHCP server for a man-in-middle attack. Which recommendation, if followed, would mitigate this type of attack?

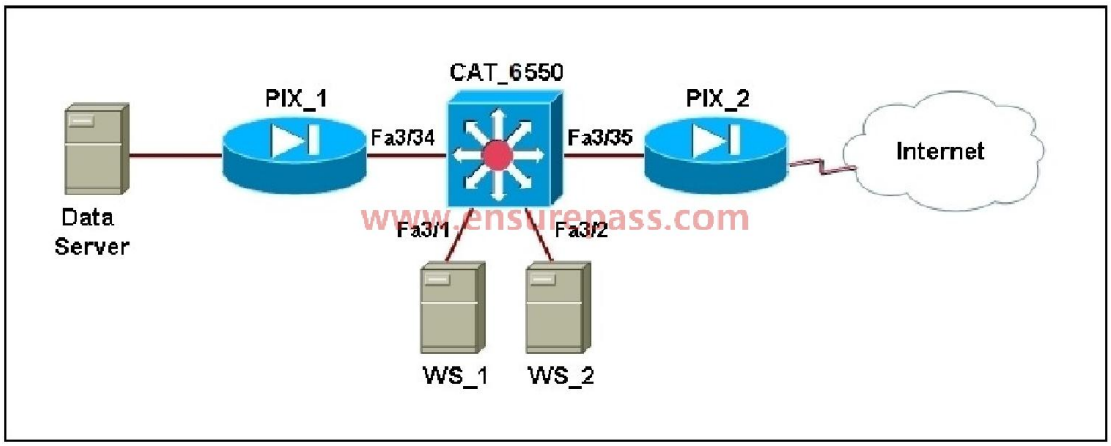


A. All switch ports in the Building Access block should be configured as DHCP trusted ports.
B. All switch ports in the Building Access block should be configured as DHCP untrusted ports.
C. All switch ports connecting to hosts in the Building Access block should be configured as DHCP trusted ports.
D. All switch ports connecting to hosts in the Building Access block should be configured as DHCP untrusted ports.
E. All switch ports in the Server Farm block should be configured as DHCP untrusted ports.
F. All switch ports connecting to servers in the Server Farm block should be configured as DHCP untrusted ports.

Correct Answer: D

QUESTION 6

Refer to the exhibit. The web servers WS_1 and WS_2 need to be accessed by external and internal users. For security reasons, the servers should not communicate with each other, although they are located on the same subnet. However, the servers do need to communicate with a database server located in the inside network. Which configuration isolates the servers from each other?



A. The switch ports 3/1 and 3/2 are defined as secondary VLAN isolated ports. The ports connecting to the two firewalls are defined as primary VLAN promiscuous ports.
B. The switch ports 3/1 and 3/2 are defined as secondary VLAN community ports. The ports connecting to the two firewalls are defined as primary VLAN promiscuous ports.
C. The switch ports 3/1 and 3/2 and the ports connecting to the two firewalls are defined as primary VLAN promiscuous ports.
D. The switch ports 3/1 and 3/2 and the ports connecting to the two firewalls are defined as primary VLAN community ports

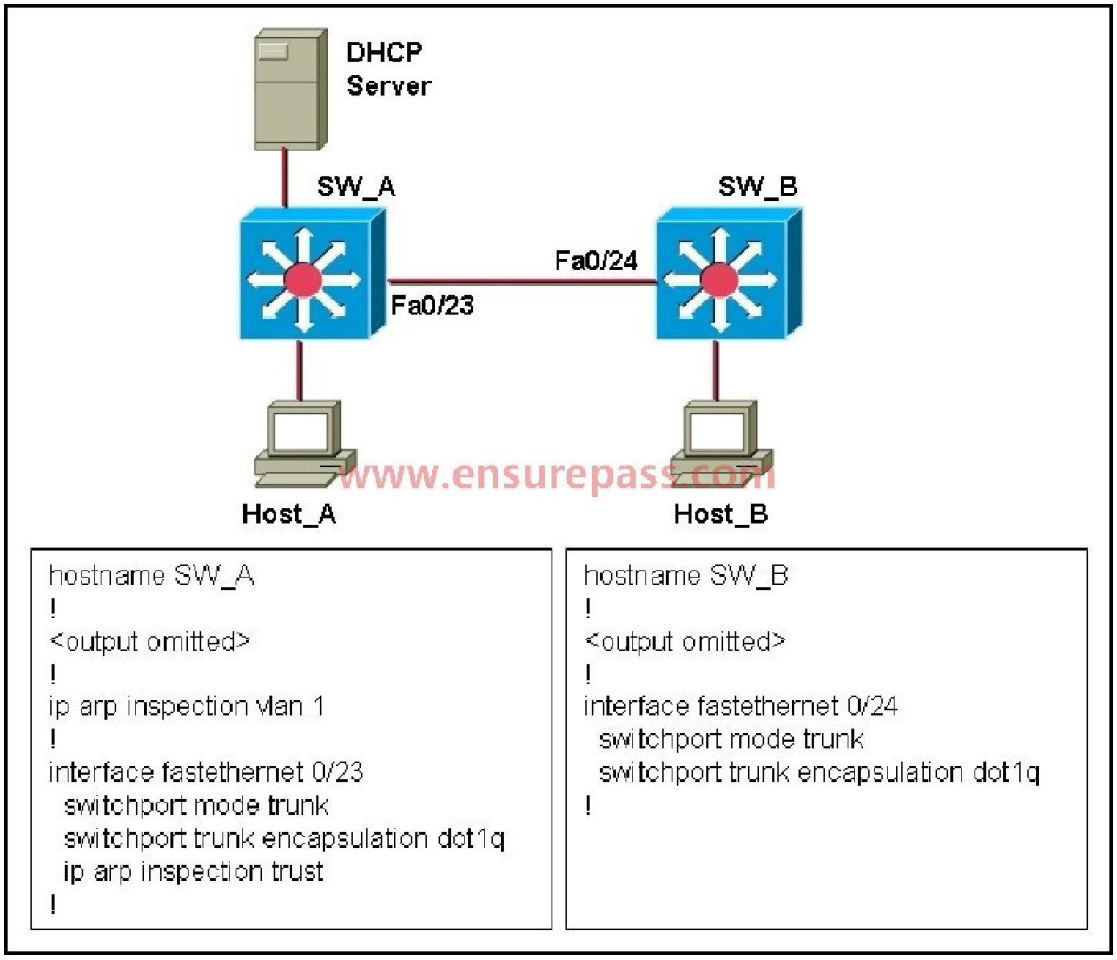
Correct Answer: A

QUESTION 7
What does the command udld reset accomplish?

A. allows a UDLD port to automatically reset when it has been shut down
B. resets all UDLD enabled ports that have been shut down
C. removes all UDLD configurations from interfaces that were globally enabled
D. removes all UDLD configurations from interfaces that were enabled per-port

Correct Answer: B

QUESTION 8
Refer to the exhibit. Dynamic ARP Inspection is enabled only on switch SW_A. Host_A and Host_B acquire their IP addresses from the DHCP server connected to switch SW_A. What would the outcome be if Host_B initiated an ARP spoof attack toward Host_A?



A. The spoof packets are inspected at the ingress port of switch SW_A and are permitted.
B. The spoof packets are inspected at the ingress port of switch SW_A and are dropped.
C. The spoof packets are not inspected at the ingress port of switch SW_A and are permitted.
D. The spoof packets are not inspected at the ingress port of switch SW_A and are dropped.

Correct Answer: C

QUESTION 9

Which statement is true about Layer 2 security threats?

A. MAC spoofing, in conjunction with ARP snooping, is the most effective counter-measure against reconnaissance attacks that use Dynamic ARP Inspection to determine vulnerable attack points.
B. DHCP snooping sends unauthorized replies to DHCP queries.
C. ARP spoofing can be used to redirect traffic to counter Dynamic ARP Inspection.
D. Dynamic ARP Inspection in conjunction with ARP spoofing can be used to counter DHCP snooping attacks.
E. MAC spoofing attacks allow an attacking device to receive frames intended for a different network host.
F. Port scanners are the most effective defense against Dynamic ARP Inspection.

Correct Answer: E

QUESTION 10

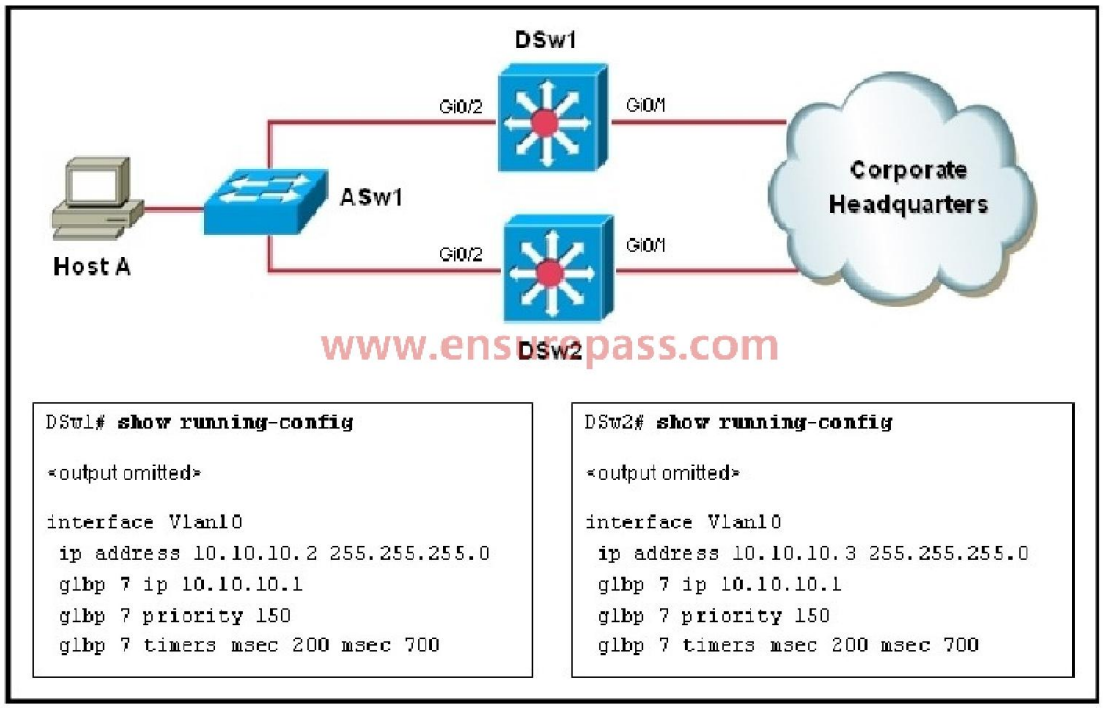
What does the global configuration command "ip arp inspection vlan 10-12,15" accomplish?

A. validates outgoing ARP requests for interfaces configured on VLAN 10, 11, 12, or 15
B. intercepts all ARP requests and responses on trusted ports
C. intercepts, logs, and discards ARP packets with invalid IP-to-MAC address bindings
D. discards ARP packets with invalid IP-to-MAC address bindings on trusted ports

Correct Answer: C

QUESTION 11

Refer to the exhibit. Host A has sent an ARP message to the default gateway IP address 10.10.10.1. Which statement is true?



A. Because of the invalid timers that are configured, DSw1 does not reply.
B. DSw1 replies with the IP address of the next AVF.
C. DSw1 replies with the MAC address of the next AVF.
D. Because of the invalid timers that are configured, DSw2 does not reply.
E. DSw2 replies with the IP address of the next AVF.
F. DSw2 replies with the MAC address of the next AVF.

Correct Answer: F

QUESTION 12
What are two methods of mitigating MAC address flooding attacks? (Choose two.)

A. Place unused ports in a common VLAN.
B. Implement private VLANs.
C. Implement DHCP snooping.
D. Implement port security.
E. Implement VLAN access maps.

Correct Answer: DE

QUESTION 13
Refer to the exhibit. What information can be derived from the output?

```
Switch#show spanning-tree inconsistentports
Name                 Interface              Inconsistency
-------------------- ---------------------- ------------------
VLAN0001             FastEthernet3/1        Port Type Inconsistent
VLAN0001             FastEthernet3/2        Port Type Inconsistent
VLAN1002             FastEthernet3/1        Port Type Inconsistent
VLAN1002             FastEthernet3/2        Port Type Inconsistent
VLAN1003             FastEthernet3/1        Port Type Inconsistent
VLAN1003             FastEthernet3/2        Port Type Inconsistent
VLAN1004             FastEthernet3/1        Port Type Inconsistent
VLAN1004             FastEthernet3/2        Port Type Inconsistent
VLAN1005             FastEthernet3/1        Port Type Inconsistent
VLAN1005             FastEthernet3/2        Port Type Inconsistent
Number of inconsistent ports (segments) in the system :10
```

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A. Interfaces FastEthernet3/1 and FastEthernet3/2 are connected to devices that are sending BPDUs with a superior root bridge parameter and no traffic is forwarded across the ports. After the sending of BPDUs has stopped, the interfaces must be shut down administratively, and brought back up, to resume normal operation.
B. Devices connected to interfaces FastEthernet3/1 and FastEthernet3/2 are sending BPDUs with a superior root bridge parameter, but traffic is still forwarded across the ports.
C. Devices connected to interfaces FastEthernet3/1 and FastEthernet3/2 are sending BPDUs with a superior root bridge parameter and no traffic is forwarded across the ports. After the inaccurate BPDUs have been stopped, the interfaces automatically recover and resume normal operation.
D. Interfaces FastEthernet3/1 and FastEthernet3/2 are candidates for becoming the STP root port, but neither can realize that role until BPDUs with a superior root bridge parameter are no longer received on at least one of the interfaces.

Correct Answer: C

QUESTION 14

What is one method that can be used to prevent VLAN hopping?

A. Configure ACLs.
B. Enforce username and password combinations.
C. Configure all frames with two 802.1Q headers.
D. Explicitly turn off DTP on all unused ports.
E. Configure VACLs.

Correct Answer: D

QUESTION 15

Why is BPDU guard an effective way to prevent an unauthorized rogue switch from altering the spanning- tree topology of a network?

A. BPDU guard can guarantee proper selection of the root bridge.
B. BPDU guard can be utilized along with PortFast to shut down ports when a switch is connected to the port.
C. BPDU guard can be utilized to prevent the switch from transmitting BPDUs and incorrectly altering the root bridge election.
D. BPDU guard can be used to prevent invalid BPDUs from propagating throughout the network.

Correct Answer: B

QUESTION 16

What two steps can be taken to help prevent VLAN hopping? (Choose two.)

A. Place unused ports in a common unrouted VLAN.
B. Enable BPDU guard.
C. Implement port security.
D. Prevent automatic trunk configurations.
E. Disable Cisco Discovery Protocol on ports where it is not necessary.

Correct Answer: AD

QUESTION 17

Refer to the exhibit. Assume that Switch_A is active for the standby group and the standby device has only the default HSRP configuration. Which statement is true?

```
Switch_A(config-if)# ip address 10.10.10.1 255.255.255.0
Switch_A(config-if)# standby 1 priority 200
Switch_A(config-if)# standby 1 preempt
Switch_A(config-if)# standby 1 track interface fa 1/1
Switch_A(config-if)# standby 1 ip 10.10.10.10
```

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A. If port Fa1/1 on Switch_A goes down, the standby device takes over as active.
B. If the current standby device had the higher priority value, it would take over the role of active for the HSRP group.
C. If port Fa1/1 on Switch_A goes down, the new priority value for the switch would be 190.
D. If Switch_A had the highest priority number, it would not take over as active router.

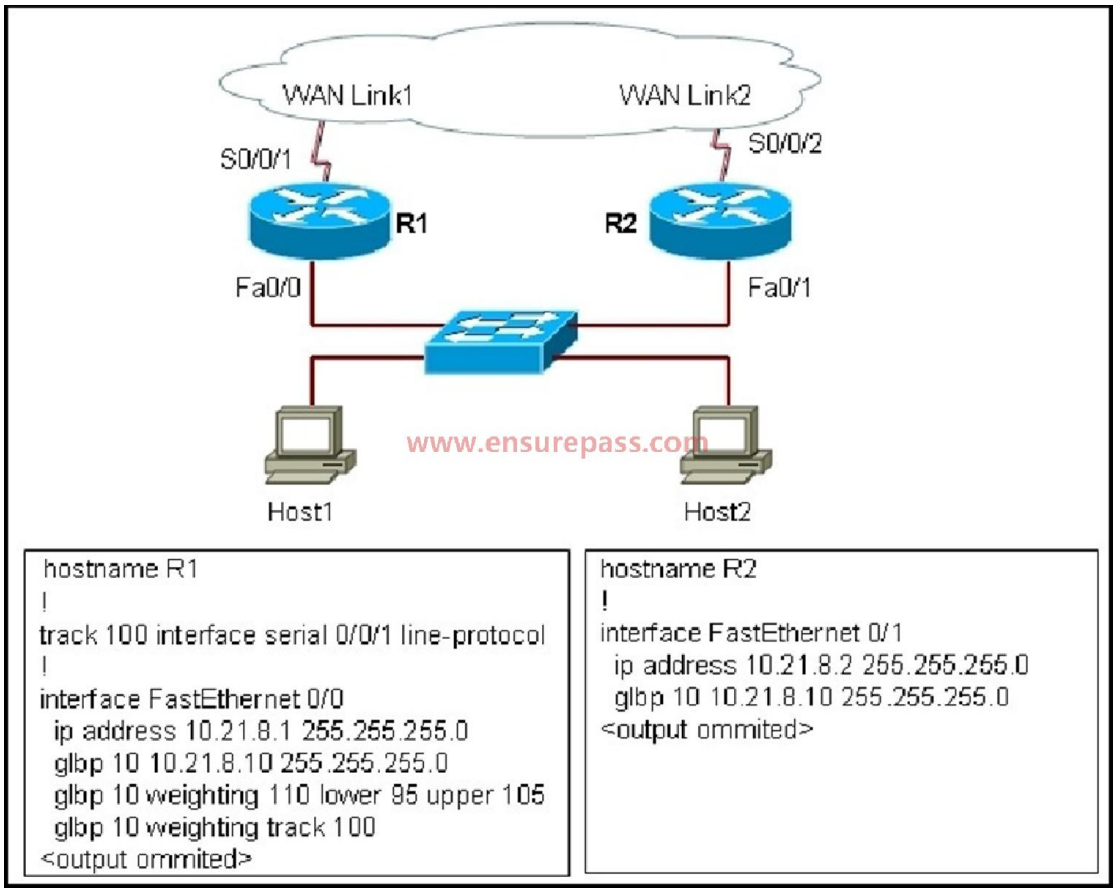
Correct Answer: C

QUESTION 18
When an attacker is using switch spoofing to perform VLAN hopping, how is the attacker able to gather information?

A. The attacking station uses DTP to negotiate trunking with a switch port and captures all traffic that is allowed on the trunk.
B. The attacking station tags itself with all usable VLANs to capture data that is passed through the switch, regardless of the VLAN to which the data belongs.
C. The attacking station generates frames with two 802.1Q headers to cause the switch to forward the frames to a VLAN that would be inaccessible to the attacker through legitimate means.
D. The attacking station uses VTP to collect VLAN information that is sent out and then tags itself with the domain information to capture the data.

Correct Answer: A

QUESTION 19
Refer to the exhibit. GLBP has been configured on the network. When the interface serial0/0/1 on router R1 goes down, how is the traffic coming from Host1 handled?



A. The traffic coming from Host1 and Host2 is forwarded through router R2 with no disruption.
B. The traffic coming from Host2 is forwarded through router R2 with no disruption. Host1 sends an ARP request to resolve the MAC address for the new virtual gateway.
C. The traffic coming from both hosts is temporarily interrupted while the switchover to make R2 active occurs.
D. The traffic coming from Host2 is forwarded through router R2 with no disruption. The traffic from Host1 is dropped due to the disruption of the load balancing feature configured for the GLBP group.

Correct Answer: A

QUESTION 20

Refer to the exhibit. DHCP snooping is enabled for selected VLANs to provide security on the network. How do the switch ports handle the DHCP messages?

```
Switch# show ip dhcp snooping
Switch DHCP snooping is enabled
DHCP Snooping is configured on the following VLANs:
    10 30-40 100 200-220
Insertion of option 82 information is enabled.
Interface            Trusted          Rate limit (pps)
---------            -------          ----------------
FastEthernet2/1      yes              none
FastEthernet2/2      yes              none
FastEthernet3/1      no               20
Switch#
```

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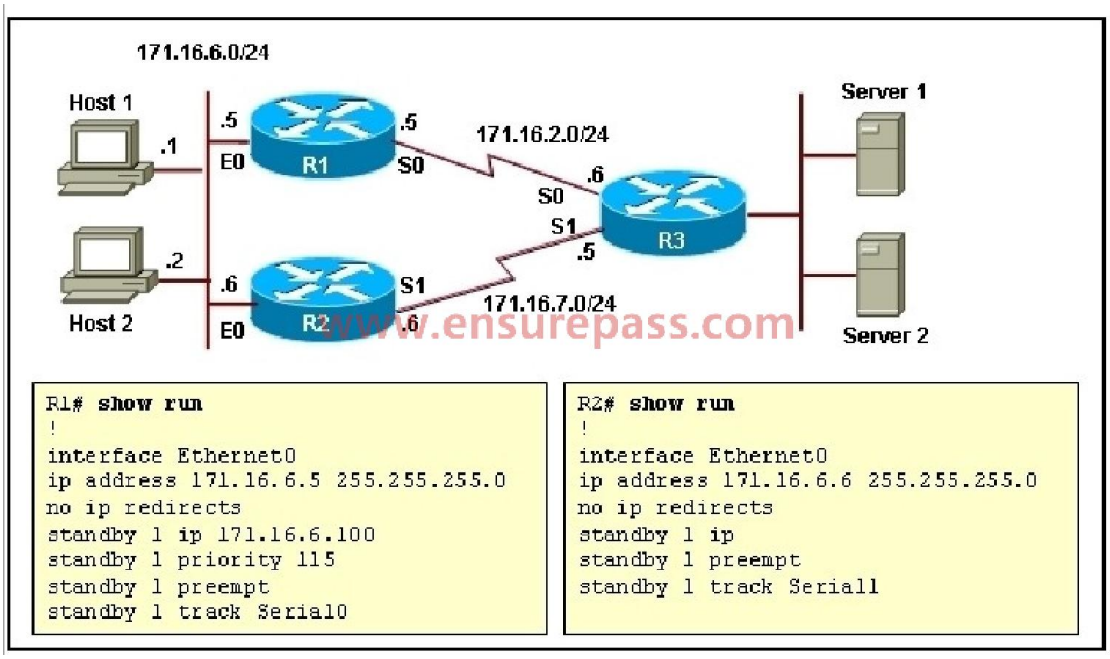
A. A DHCPOFFER packet from a DHCP server received on Ports Fa2/1 and Fa2/2 is dropped.
B. A DHCP packet received on ports Fa2/1 and Fa2/2 is dropped if the source MAC address and the DHCP client hardware address does not match Snooping database.
C. A DHCP packet received on ports Fa2/1 and Fa2/2 is forwarded without being tested.
D. A DHCPRELEASE message received on ports Fa2/1 and Fa2/2 has a MAC address in the DHCP snooping binding database, but the interface information in the binding database does not match the interface on which the message was received and is dropped.

Correct Answer: C

QUESTION 21

Refer to the exhibit and the partial configuration on routers R1 and R2. HSRP is configured on the network to provide network redundancy for the IP traffic. The network administrator noticed that

R2 does not become active when the R1 serial0 interface goes down. What should be changed in the configuration to fix the problem?



A. R2 should be configured with an HSRP virtual address.
B. R2 should be configured with a standby priority of 100.
C. The Serial0 interface on router R2 should be configured with a decrement value of 20.
D. The Serial0 interface on router R1 should be configured with a decrement value of 20.

Correct Answer: D

QUESTION 22

Which optional feature of an Ethernet switch disables a port on a point-to-point link if the port does not receive traffic while Layer 1 status is up?

A. BackboneFast
B. UplinkFast
C. Loop Guard
D. UDLD aggressive mode
E. Fast Link Pulse bursts
F. Link Control Word

Correct Answer: D

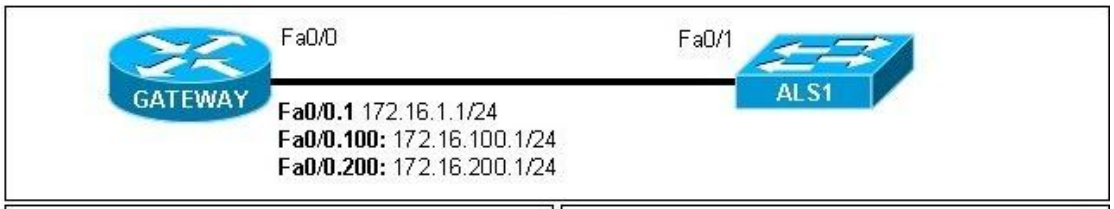
QUESTION 23

Which three statements about routed ports on a multilayer switch are true? (Choose three.)

A. A routed port can support VLAN subinterfaces.
B. A routed port takes an IP address assignment.
C. A routed port can be configured with routing protocols.
D. A routed port is a virtual interface on the multilayer switch.
E. A routed port is associated only with one VLAN.
F. A routed port is a physical interface on the multilayer switch.

Correct Answer: BCF

QUESTION 24
Refer to the exhibit. Why are users from VLAN 100 unable to ping users on VLAN 200?




```
hostname GATEWAY
!
interface FastEthernet0/0
no shutdown
!
interface FastEthernet0/0.1
description Management VLAN
encapsulation dot1Q 1 native
ip address 172.16.1.1 255.255.255.0
!
interface FastEthernet0/0.100
description Finance VLAN
encapsulation dot1Q 100
ip address 172.16.100.1 255.255.255.0
!
interface FastEthernet0/0.200
description Engineering VLAN
encapsulation dot1Q 200
ip address 172.16.200.1 255.255.255.0
```

```
hostname ALS1
!
enable secret cisco
!
interface FastEthernet0/1
!
interface FastEthernet0/6
switchport access vlan 100
switchport mode access
!
interface FastEthernet0/11
switchport access vlan 200
switchport mode access
!
interface Vlan1
ip address 172.16.1.101 255.255.255.0
!
ip default-gateway 172.16.1.1
```

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A. Encapsulation on the switch is wrong.
B. Trunking must be enabled on Fa0/1.
C. The native VLAN is wrong.
D. VLAN 1 needs the no shutdown command.
E. IP routing must be enabled on the switch.

Correct Answer: B

QUESTION 25
Which three statements about Dynamic ARP Inspection are true? (Choose three.)

A. It determines the validity of an ARP packet based on the valid MAC address-to-IP address bindings stored in the DHCP snooping database.
B. It forwards all ARP packets received on a trusted interface without any checks.
C. It determines the validity of an ARP packet based on the valid MAC address-to-IP address bindings stored in the CAM table.
D. It forwards all ARP packets received on a trusted interface after verifying and inspecting the packet against the Dynamic ARP Inspection table.
E. It intercepts all ARP packets on untrusted ports.
F. It is used to prevent against a DHCP snooping attack.

Correct Answer: ABE

QUESTION 26
A network administrator wants to configure 802.1x port-based authentication, however, the client workstation is not 802.1x compliant. What is the only supported authentication server that can be used?

A. TACACS with LEAP extensions
B. TACACS+
C. RADIUS with EAP extensions
D. LDAP

Correct Answer: C

QUESTION 27
The following command was issued on a router that is being configured as the active HSRP router.

standby ip 10.2.1.1

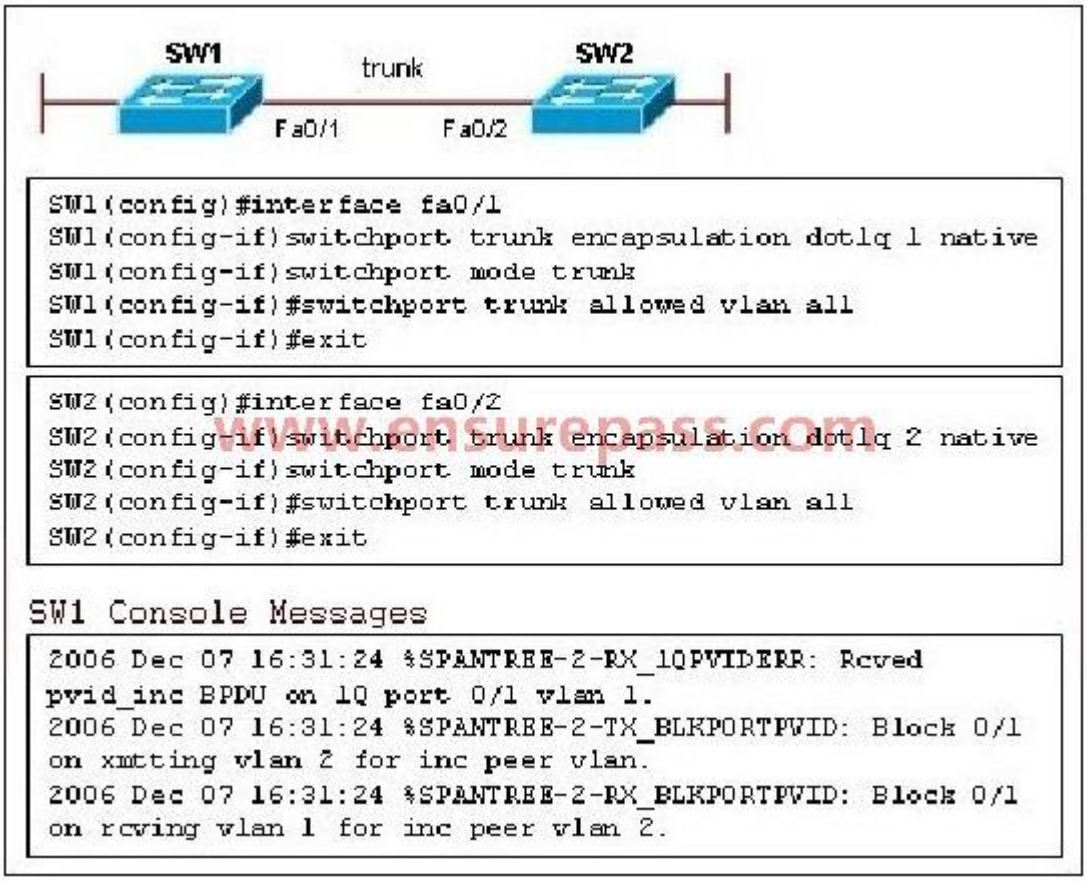
Which statement about this command is true?

A. This command will not work because the HSRP group information is missing.
B. The HSRP MAC address will be 0000.0c07.ac00.
C. The HSRP MAC address will be 0000.0c07.ac01.
D. The HSRP MAC address will be 0000.070c.ac11.
E. This command will not work because the active parameter is missing.

Correct Answer: B

QUESTION 28
Refer to the exhibit. The link between switch SW1 and switch SW2 is configured as a trunk, but the trunk failed to establish connectivity between the switches. Based on the configurations and the

error messages received on the console of SW1, what is the cause of the problem?


SW1
trunk
SW2
Fa0/1
Fa0/2
SW1(config)#interface fa0/1
SW1(config-if)switchport trunk encapsulation dot1q 1 native
SW1(config-if)switchport mode trunk
SW1(config-if)#switchport trunk allowed vlan all
SW1(config-if)#exit
SW2(config)#interface fa0/2
SW2(config-if)switchport trunk encapsulation dot1q 2 native
SW2(config-if)switchport mode trunk
SW2(config-if)#switchport trunk allowed vlan all
SW2(config-if)#exit
SW1 Console Messages
2006 Dec 07 16:31:24 %SPANTREE-2-RX_1QPVIDERR: Rcved pvid_inc BPDU on 1Q port 0/1 vlan 1.
2006 Dec 07 16:31:24 %SPANTREE-2-TX_BLKPORTPVID: Block 0/1 on xmtting vlan 2 for inc peer vlan.
2006 Dec 07 16:31:24 %SPANTREE-2-RX_BLKPORTPVID: Block 0/1 on rcving vlan 1 for inc peer vlan 2.

A. The two ends of the trunk have different duplex settings.
B. The two ends of the trunk have different EtherChannel configurations.
C. The two ends of the trunk have different native VLAN configurations.
D. The two ends of the trunk allow different VLANs on the trunk.

Correct Answer: C

QUESTION 29

A campus infrastructure supports wireless clients via Cisco Aironet AG Series 1230, 1240, and 1250 access points. With DNS and DHCP configured, the 1230 and 1240 access points appear to boot and operate normally. However, the 1250 access points do not seem to operate correctly.
What is the most likely cause of this problem?

A. DHCP with option 150
B. DHCP with option 43
C. PoE
D. DNS
E. switch port does not support gigabit speeds

Correct Answer: C

QUESTION 30

A standalone wireless AP solution is being installed into the campus infrastructure. The access points appear to boot correctly, but wireless clients are not obtaining correct access. You verify that this is the local switch configuration connected to the access point:

```
interface ethernet 0/1
switchport access vlan 10
switchport mode access
spanning-tree portfast
mls qos trust dscp
```

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What is the most likely cause of the problem?

A. QoS trust should not be configured on a port attached to a standalone AP.
B. QoS trust for switchport mode access should be defined as "cos".
C. switchport mode should be defined as "trunk" with respective QoS.
D. switchport access vlan should be defined as "1".

Correct Answer: C

QUESTION 31

During the implementation of a voice solution, which two required items are configured at an access layer switch that will be connected to an IP phone to provide VoIP communication? (Choose two.)

A. allowed codecs
B. untagged VLAN
C. auxiliary VLAN
D. Cisco Unified Communications Manager IP address
E. RSTP

Correct Answer: BC

QUESTION 32

Which two statements best describe Cisco IOS IP SLA? (Choose two.)

A. only implemented between Cisco source and destination-capable devices
B. statistics provided by syslog, CLI, and SNMP
C. measures delay, jitter, packet loss, and voice quality
D. only monitors VoIP traffic flows
E. provides active monitoring

Correct Answer: CE

QUESTION 33
Which two items best describe a Cisco IOS IP SLA responder? (Choose two.)

A. required at the destination to implement Cisco IOS IP SLA services
B. improves measurement accuracy
C. required for VoIP jitter measurements
D. provides security on Cisco IOS IP SLA messages via LEAP or EAP-FAST authentication
E. responds to one Cisco IOS IP SLA operation per port
F. stores the resulting test statistics

Correct Answer: BC

QUESTION 34
Which two characteristics apply to Cisco Catalyst 6500 Series Switch supervisor redundancy using NSF? (Choose two.)

A. supported by RIPv2, OSPF, IS-IS, and EIGRP
B. uses the FIB table
C. supports IPv4 and IPv6 multicast
D. prevents route flapping
E. independent of SSO
F. NSF combined with SSO enables supervisor engine load balancing

Correct Answer: BD

QUESTION 35
You are tasked with designing a security solution for your network. What information should be gathered before you design the solution?

A. IP addressing design plans, so that the network can be appropriately segmented to mitigate potential network threats
B. a list of the customer requirements
C. detailed security device specifications

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D. results from pilot network testing

Correct Answer: B

QUESTION 36
Which two components should be part of a security implementation plan? (Choose two.)

A. detailed list of personnel assigned to each task within the plan
B. a Layer 2 spanning-tree design topology
C. rollback guidelines
D. placing all unused access ports in VLAN 1 to proactively manage port security
E. enabling SNMP access to Cisco Discovery Protocol data for logging and forensic analysis

Correct Answer: BC

QUESTION 37
When creating a network security solution, which two pieces of information should you have obtained previously to assist in designing the solution? (Choose two.)

A. a list of existing network applications currently in use on the network
B. network audit results to uncover any potential security holes
C. a planned Layer 2 design solution
D. a proof-of-concept plan
E. device configuration templates

Correct Answer: AB

QUESTION 38
What action should you be prepared to take when verifying a security solution?

A. having alternative addressing and VLAN schemes
B. having a rollback plan in case of unwanted or unexpected results
C. running a test script against all possible security threats to insure that the solution will mitigate all potential threats
D. isolating and testing each security domain individually to insure that the security design will meet overall requirements when placed into production as an entire system

Correct Answer: B
QUESTION 39
When you enable port security on an interface that is also configured with a voice VLAN, what is the maximum number of secure MAC addresses that should be set on the port?

A. No more than one secure MAC address should be set.
B. The default is set.
C. The IP phone should use a dedicated port, therefore only one MAC address is needed per port.
D. No value is needed if the switchport priority extend command is configured.
E. No more than two secure MAC addresses should be set.

Correct Answer: E

QUESTION 40
Refer to the exhibit. From the configuration shown, what can be determined?

```
Switch(config)# interface FastEthernet0/1
Switch(config-if)# switchport access vlan 21
Switch(config-if)# switchport mode access
Switch(config-if)# switchport voice vlan 22
Switch(config-if)# switchport port-security
Switch(config-if)# switchport port-security maximum 20
Switch(config-if)# switchport port-security violation restrict
Switch(config-if)# switchport port-security mac-address sticky
Switch(config-if)# switchport port-security mac-address sticky 0000.0000.0002
Switch(config-if)# switchport port-security mac-address 0000.0000.0003
Switch(config-if)# switchport port-security mac-address sticky 0000.0000.0001 vlan voice
Switch(config-if)# switchport port-security mac-address 0000.0000.0004 vlan voice
Switch(config-if)# switchport port-security maximum 10 vlan access
Switch(config-if)# switchport port-security maximum 10 vlan voice
```

A. The sticky addresses are only those manually configured MAC addresses enabled with the sticky keyword.
B. The remaining secure MAC addresses are learned dynamically, converted to sticky secure MAC addresses, and added to the running configuration.
C. A voice VLAN is configured in this example, so port security should be set for a maximum of 2.
D. A security violation restricts the number of addresses to a maximum of 10 addresses per access VLAN and voice VLAN. The port is shut down if more than 10 devices per VLAN attempt to access the port.

Correct Answer: B

QUESTION 41
Refer to the above. Three switches are configured for HSRP. Switch1 remains in the HSRP listen state. What is the most likely cause of this status?

```
hostname Switch1
interface Vlan10
ip address 172.16.10.32 255.255.255.0
no ip redirects
standby 1 ip 172.16.10.110
standby 1 timers msec 200 msec 700
standby 1 preempt

hostname Switch2
interface Vlan10
ip address 172.16.10.33 255.255.255.0
no ip redirects
standby 1 ip 172.16.10.110
standby 1 timers msec 200 msec 750
standby 1 priority 110
standby 1 preempt

hostname Switch3
interface Vlan10
ip address 172.16.10.34 255.255.255.0
no ip redirects
standby 1 ip 172.16.10.110
standby 1 timers msec 200 msec 750
standby 1 priority 150
standby 1 preempt
```

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A. This is normal operation.
B. The standby group number does not match the VLAN number.
C. IP addressing is incorrect.
D. Priority commands are incorrect.
E. Standby timers are incorrect.

Correct Answer: A

QUESTION 42

Three Cisco Catalyst switches have been configured with a first-hop redundancy protocol. While reviewing some show commands, debug output, and the syslog, you discover the following

information:

```
Jan 9 08:00:42.623: %STANDBY-6-STATECHANGF. Standby: 49:
Vlan149 state Standby -> Active
Jan 9 08:00:56.011: %STANDBY-6-STATECHANGF. Standby: 49:
Vlan149 state Active -> Speak
Jan 9 08:01:03.011: %STANDBY-6-STATECHANGF. Standby: 49:
Vlan149 state Speak -> Standby
Jan 9 08:01:29.427: %STANDBY-6-STATECHANGF. Standby: 49:
Vlan149 state Standby -> Active
Jan 9 08:01:36.808: %STANDBY-6-STATECHANGF. Standby: 49:
Vlan149 state Active -> Speak
Jan 9 08:01:43.808: %STANDBY-6-STATECHANGF. Standby: 49:
Vlan149 state Speak -> Standby
```

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What conclusion can you infer from this information?

A. VRRP is initializing and operating correctly.
B. HSRP is initializing and operating correctly.
C. GLBP is initializing and operating correctly.
D. VRRP is not exchanging three hello messages properly.
E. HSRP is not exchanging three hello messages properly.
F. GLBP is not exchanging three hello messages properly.

Correct Answer: E

QUESTION 43
By itself, what does the command aaa new-model enable?

A. It globally enables AAA on the switch, with default lists applied to the VTYs.
B. Nothing; you must also specify which protocol (RADIUS or TACACS) will be used for AAA.
C. It enables AAA on all dot1x ports.
D. Nothing; you must also specify where (console, TTY, VTY, dot1x) AAA is being applied.

Correct Answer: A

QUESTION 44
What are three results of issuing the switchport host command? (Choose three.)

A. disables EtherChannel
B. enables port security
C. disables Cisco Discovery Protocol
D. enables PortFast
E. disables trunking
F. enables loopguard

Correct Answer: ADE

QUESTION 45
When configuring private VLANs, which configuration task must you do first?

A. Configure the private VLAN port parameters.
B. Configure and map the secondary VLAN to the primary VLAN.
C. Disable IGMP snooping.
D. Set the VTP mode to transparent.

Correct Answer: D

QUESTION 46
Which statement about the configuration and application of port access control lists is true?

A. PACLs can be applied in the inbound or outbound direction of a Layer 2 physical interface.
B. At Layer 2, a MAC address PACL takes precedence over any existing Layer 3 PACL.
C. When you apply a port ACL to a trunk port, the ACL filters traffic on all VLANs present on the trunk port.
D. PACLs are not supported on EtherChannel interfaces.

Correct Answer: C

QUESTION 47
Refer to the exhibit. Which statement about the command output is true?

```
switch# show port-security interface fastethernet 0/1
Port Security: Enabled
Port status: SecureUp
Violation mode: Shutdown
Maximum MAC Addresses: 11
Total MAC Addresses: 11
Configured MAC Addresses: 3
Aging time: 20 mins
Aging type: Inactivity
SecureStatic address aging: Enabled
Security Violation count: 0
```

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A. If the number of devices attempting to access the port exceeds 11, the port shuts down for 20 minutes, as configured.
B. The port has security enabled and has shut down due to a security violation.
C. The port is operational and has reached its configured maximum allowed number of MAC addresses.
D. The port allows access for 11 MAC addresses in addition to the three configured MAC addresses.

Correct Answer: C

QUESTION 48

Refer to the exhibit. Which statement best describes first-hop redundancy protocol status?

Switch# show ip arp

Protocol	Address	Age(min)	Hardware Addr	Type	Interface
Internet	172.16.233.22	9	0000.0c59.f892	ARPA	Vlan10
Internet	172.16.233.21	8	0000.0c63.1300	ARPA	Vlan10
Internet	172.16.233.19	-	0000.0c07.ac0b	ARPA	Vlan10

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A. The first-hop redundancy protocol is not configured for this interface.
B. HSRP is configured for group 10.
C. HSRP is configured for group 11.
D. VRRP is configured for group 10.

E. VRRP is configured for group 11.
F. GLBP is configured with a single AVF.

Correct Answer: C

QUESTION 49
Which statement best describes implementing a Layer 3 EtherChannel?

A. EtherChannel is a Layer 2 feature and not a Layer 3 feature.
B. Implementation requires switchport mode trunk and matching parameters between switches.
C. Implementation requires disabling switchport mode.
D. A Layer 3 address is assigned to the physical interface.

Correct Answer: C

QUESTION 50
Which statement about when standard access control lists are applied to an interface to control inbound or outbound traffic is true?

A. The best match of the ACL entries is used for granularity of control.
B. They use source IP information for matching operations.
C. They use source and destination IP information for matching operations.
D. They use source IP information along with protocol-type information for finer granularity of control.

Correct Answer: B

QUESTION 51
Refer to the exhibit. You have configured an interface to be an SVI for Layer 3 routing capabilities. Assuming that all VLANs have been correctly configured, what can be determined?

```
Switch# configure terminal
Switch(config)# interface gigabitethernet0/2
Switch(config-if)# switchport autostate exclude
Switch(config-if)# exit
```

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A. Interface gigabitethernet0/2 will be excluded from Layer 2 switching and enabled for Layer 3 routing.
B. The command switchport autostate exclude should be entered in global configuration mode,

not subinterface mode, to enable a Layer 2 port to be configured for Layer 3 routing.

C. The configured port is excluded in the calculation of the status of the SVI.

D. The interface is missing IP configuration parameters; therefore, it will only function at Layer 2.

Correct Answer: C

QUESTION 52

Refer to the exhibit. Which two statements about this Layer 3 security configuration example are true? (Choose two.)

```
Switch# configure terminal
Switch(config)# interface gigabitethernet0/1
Switch(config-if)# ip verify source port-security
Switch(config-if)# exit
Switch(config)# ip source binding 0100.0022.0010 vlan 10 10.0.0.2 interface gigabitethernet0/1
Switch(config)# ip source binding 0100.0230.0002 vlan 11 10.0.0.4 interface gigabitethernet0/1
Switch(config)# end
```

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A. Static IP source binding can be configured only on a routed port.

B. Source IP and MAC filtering on VLANs 10 and 11 will occur.

C. DHCP snooping will be enabled automatically on the access VLANs.

D. IP Source Guard is enabled.

E. The switch will drop the configured MAC and IP address source bindings and forward all other traffic.

Correct Answer: BD

QUESTION 53

Refer to the exhibit. Which statement is true?

```
Switch# show ip cef vlan 30 detail
IP CEF with switching (Table Version 11), flags=0x0
10 routes, 0 reresolve, 0 unresolved (0 old, 0 new), peak 0
13 leaves, 12 nodes, 14248 bytes, 14 inserts, 1 invalidations
0 load sharing elements, 0 bytes, 0 references
universal per-destination load sharing algorithm, id 4B936A24
2(0) CEF resets, 0 revisions of existing leaves
Resolution Timer: Exponential (currently 1s, peak 1s)
0 in-place/0 aborted modifications
refcounts: 1061 leaf, 1052 node
Table epoch: 0 (13 entries at this epoch)
10.1.30.0/24, version 6, epoch 0, attached, connected
0 packets, 0 bytes
via Vlan30, 0 dependencies
valid glean adjacency
```

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A. Cisco Express Forwarding load balancing has been disabled.
B. SVI VLAN 30 connects directly to the 10.1.30.0/24 network due to a valid glean adjacency.
C. VLAN 30 is not operational because no packet or byte counts are indicated.
D. The IP Cisco Express Forwarding configuration is capable of supporting IPv6.

Correct Answer: B

QUESTION 54

Which statement about the EIGRP routing being performed by the switch is true?

```
Switch# show ip eigrp neighbors
EIGRP-IPv4:(20) neighbors for process 20
```

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A. The EIGRP neighbor table contains 20 neighbors.
B. EIGRP is running normally and receiving IPv4 routing updates.
C. EIGRP status cannot be determined. The command show ip eigrp topology would determine the routing protocol status.
D. The switch has not established any neighbor relationships. Further network testing and troubleshooting must be performed to determine the cause of the problem.

Correct Answer: D

QUESTION 55

What is the result of entering the command spanning-tree loopguard default?

A. The command enables loop guard and root guard.
B. The command changes the status of loop guard from the default of disabled to enabled.
C. The command activates loop guard on point-to-multipoint links in the switched network.
D. The command disables EtherChannel guard.

Correct Answer: B

QUESTION 56
What does the interface subcommand switchport voice vlan 222 indicate?

A. The port is configured for both data and voice traffic.
B. The port is fully dedicated to forwarding voice traffic.
C. The port operates as an FXS telephony port.
D. Voice traffic is directed to VLAN 222.

Correct Answer: A

QUESTION 57
When you create a network implementation for a VLAN solution, what is one procedure that you should include in your plan?

A. Perform an incremental implementation of components.
B. Implement the entire solution and then test end-to-end to make sure that it is performing as designed.
C. Implement trunking of all VLANs to ensure that traffic is crossing the network as needed before performing any pruning of VLANs.
D. Test the solution on the production network in off hours.

Correct Answer: A

QUESTION 58
You have just created a new VLAN on your network. What is one step that you should include in your VLAN-based implementation and verification plan?

A. Verify that different native VLANs exist between two switches for security purposes.
B. Verify that the VLAN was added on all switches with the use of the show vlan command.
C. Verify that the switch is configured to allow for trunking on the switch ports.
D. Verify that each switch port has the correct IP address space assigned to it for the new VLAN.

Correct Answer: B

QUESTION 59
Which two statements describe a routed switch port on a multilayer switch? (Choose two.)

A. Layer 2 switching and Layer 3 routing are mutually supported.
B. The port is not associated with any VLAN.
C. The routed switch port supports VLAN subinterfaces.
D. The routed switch port is used when a switch has only one port per VLAN or subnet.
E. The routed switch port ensures that STP remains in the forwarding state.

Correct Answer: BD

QUESTION 60
Which two statements correctly describe VTP? (Choose two.)

A. Transparent mode always has a configuration revision number of 0.
B. Transparent mode cannot modify a VLAN database.
C. Client mode cannot forward received VTP advertisements.
D. Client mode synchronizes its VLAN database from VTP advertisements.
E. Server mode can synchronize across VTP domains.

Correct Answer: AD

QUESTION 61
Which two DTP modes permit trunking between directly connected switches? (Choose two.)

A. dynamic desirable (VTP domain A) to dynamic desirable (VTP domain A)
B. dynamic desirable (VTP domain A) to dynamic desirable (VTP domain B)
C. dynamic auto (VTP domain A) to dynamic auto (VTP domain A)
D. dynamic auto (VTP domain A) to dynamic auto (VTP domain B)
E. dynamic auto (VTP domain A) to nonegotiate (VTP domain A)
F. nonegotiate (VTP domain A) to nonegotiate (VTP domain B)

Correct Answer: AF

QUESTION 62
Which two RSTP port roles include the port as part of the active topology? (Choose two.)

A. root
B. designated
C. alternate
D. backup

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E. forwarding
F. learning

Correct Answer: AB

QUESTION 63
Which two statements correctly describe characteristics of the PortFast feature? (Choose two.)

A. STP is disabled on the port.
B. PortFast can also be configured on trunk ports.
C. PortFast is needed to enable port-based BPDU guard.
D. PortFast is used for STP and RSTP host ports.
E. PortFast is used for STP-only host ports.

Correct Answer: BD

QUESTION 64
Which statement correctly describes the Cisco implementation of RSTP?

A. PortFast, UplinkFast, and BackboneFast specific configurations are ignored in Rapid PVST mode.
B. RSTP is enabled globally and uses existing STP configuration.
C. Root and alternative ports transition immediately to the forwarding state.
D. Convergence is improved by using subsecond timers for the blocking, listening, learning, and forwarding port states.

Correct Answer: B

QUESTION 65
What is the effect of applying the switchport trunk encapsulation dot1q command to a port on a Cisco Catalyst switch?

A. By default, native VLAN packets going out this port are tagged.
B. Without an encapsulation command, 802.1Q is the default encapsulation if DTP fails to negotiate a trunking protocol.
C. The interface supports the reception of tagged and untagged traffic.
D. If the device connected to this port is not 802.1Q-enabled, it is unable to handle 802.1Q packets.

Correct Answer: C

QUESTION 66

You are the administrator of a switch and currently all host-connected ports are configured with the portfast command. You have received a new directive from your manager that states that, in the future, any host- connected port that receives a BPDU should automatically disable PortFast and begin transmitting BPDUs. Which command will support this new requirement?

A. Switch(config)#spanning-tree portfast bpduguard default
B. Switch(config-if)#spanning-tree bpduguard enable
C. Switch(config-if)#spanning-tree bpdufilter enable
D. Switch(config)#spanning-tree portfast bpdufilter default

Correct Answer: D

QUESTION 67

A port in a redundant topology is currently in the blocking state and is not receiving BPDUs. To ensure that this port does not erroneously transition to the forwarding state, which command should be configured?

A. Switch(config)#spanning-tree loopguard default
B. Switch(config-if)#spanning-tree bdpufilter
C. Switch(config)#udld aggressive
D. Switch(config-if)#spanning-tree bpduguard

Correct Answer: A

QUESTION 68

Which command can be issued without interfering with the operation of loop guard?

A. Switch(config-if)#spanning-tree guard root
B. Switch(config-if)#spanning-tree portfast
C. Switch(config-if)#switchport mode trunk
D. Switch(config-if)#switchport mode access

Correct Answer: C

QUESTION 69

Which statement is a characteristic of multi-VLAN access ports?

A. The port has to support STP PortFast.
B. The auxiliary VLAN is for data service and is identified by the PVID.
C. The port hardware is set as an 802.1Q trunk.
D. The voice service and data service use the same trust boundary.

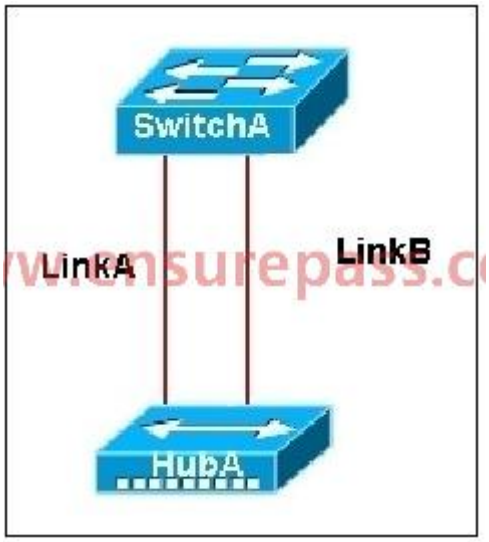
Correct Answer: C

QUESTION 70
Which two statements are true about recommended practices that are to be used in a local VLAN solution design where layer 2 traffic is to be kept to a minimum? (Choose two.)

A. Routing should occur at the access layer if voice VLANs are utilized. Otherwise, routing should occur at the distribution layer.
B. Routing may be performed at all layers but is most commonly done at the core and distribution layers.
C. Routing should not be performed between VLANs located on separate switches.
D. VLANs should be local to a switch.
E. VLANs should be localized to a single switch unless voice VLANs are being utilized.

Correct Answer: BD

QUESTION 71
Refer to the exhibit. BPDUGuard is enabled on both ports of SwitchA. Initially, LinkA is connected and forwarding traffic. A new LinkB is then attached between SwitchA and HubA. Which two statements about the possible result of attaching the second link are true? (Choose two.)



A. The switch port attached to LinkB does not transition to up.
B. One or both of the two switch ports attached to the hub goes into the err-disabled state when a BPDU is received.

C. Both switch ports attached to the hub transitions to the blocking state.
D. A heavy traffic load could cause BPDU transmissions to be blocked and leave a switching loop.
E. The switch port attached to LinkA immediately transitions to the blocking state.

Correct Answer: BD

QUESTION 72
What action should a network administrator take to enable VTP pruning on an entire management domain?

A. Enable VTP pruning on any client switch in the domain.
B. Enable VTP pruning on every switch in the domain.
C. Enable VTP pruning on any switch in the management domain.
D. Enable VTP pruning on a VTP server in the management domain.

Correct Answer: D

QUESTION 73
How does VTP pruning enhance network bandwidth?

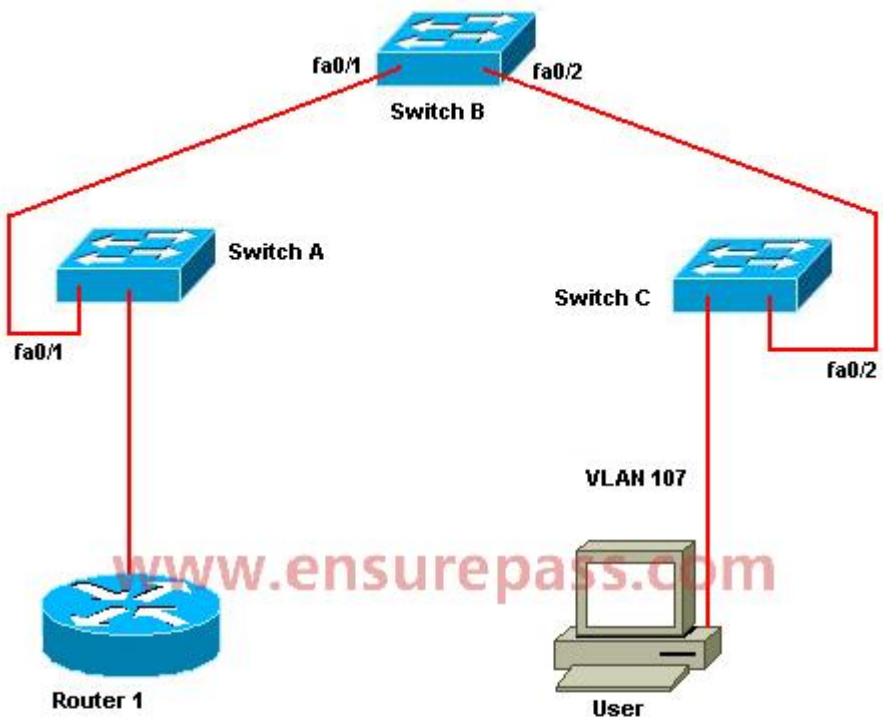
A. by restricting unicast traffic across VTP domains
B. by reducing unnecessary flooding of traffic to inactive VLANs
C. by limiting the spreading of VLAN information
D. by disabling periodic VTP updates

Correct Answer: B

QUESTION 74
In the hardware address 0000.0c07.ac0a, what does 07.ac represent?

A. vendor code
B. HSRP group number
C. HSRP router number
D. HSRP well-known physical MAC address
E. HSRP well-known virtual MAC address

Correct Answer: E
QUESTION 75
Refer to the exhibit. The network operations center has received a call stating that users in VLAN 107 are unable to access resources through router 1. What is the cause of this problem?



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Use the following information from switch A:

Port	Mode	Encapsulation	Status	Native VLAN
fa0/1	desirable	n-802.1q	trunking	5

Port	VLANs allowed on trunk
fa0/1	1-100, 102-1005

Port	VLANs allowed and active in management domain
fa0/1	1-6, 8-100, 102-105, 107-999, 1002-1005

Port	VLANs in spanning tree forwarding state and not pruned
fa0/1	1-6, 8-100, 102-105, 108-999, 1002-1005

A. VLAN 107 does not exist on switch A.
B. VTP is pruning VLAN 107.
C. VLAN 107 is not configured on the trunk.
D. Spanning tree is not enabled on VLAN 107.

Correct Answer: B

QUESTION 76

Which protocol will enable a group of routers to form a single virtual router and will use the real IP address of a router as the gateway address?

A. Proxy ARP
B. HSRP
C. IRDP
D. VRRP
E. GLBP

Correct Answer: D

QUESTION 77
On a multilayer Cisco Catalyst switch, which interface command is used to convert a Layer 3 interface to a Layer 2 interface?

A. switchport
B. no switchport
C. switchport mode access
D. switchport access vlan vlan-id

Correct Answer: A

QUESTION 78
Refer to the exhibit. What can be determined about the HSRP relationship from the displayed debug output?

```
*Mar  1 00:12:16.871: SB11: Vl11 Hello  in  172.16.11.112 Active  pri 50 ip 172.16.11.115
*Mar  1 00:12:16.871: SB11: Vl11 Active router is 172.16.11.112
*Mar  1 00:12:18.619: %LINK-3-UPDOWN: Interface Vlan11, changed state to up
*Mar  1 00:12:18.623: SB:  Vl11 Interface up
*Mar  1 00:12:18.623: SB11: Vl11 Init: a/HSRP enabled
*Mar  1 00:12:18.623: SB11: Vl11 Init -> Listen
*Mar  1 00:12:19.619: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan11, changed state to up
*Mar  1 00:12:19.819: SB11: Vl11 Hello  in  172.16.11.112 Active  pri 50 ip 172.16.11.115
*Mar  1 00:12:19.819: SB11: Vl11 Listen: h/Hello rcvd from lower pri Active router (50/172.16.11.112)
*Mar  1 00:12:22.815: SB11: Vl11 Hello  in  172.16.11.112 Active  pri 50 ip 172.16.11.115
*Mar  1 00:12:22.815: SB11: Vl11 Listen: h/Hello rcvd from lower pri Active router
*Mar  1 00:12:25.683: SB11: Vl11 Hello  in  172.16.11.112 Active  pri 50 ip 172.16.11.115
*Mar  1 00:12:25.683: SB11: Vl11 Listen: h/Hello rcvd from lower pri Active router (50/172.16.11.112)
*Mar  1 00:12:28.623: SB11: Vl11 Listen: d/Standby timer expired (unknown)
*Mar  1 00:12:28.623: SB11: Vl11 Listen -> Speak
*Mar  1 00:12:28.623: SB11: Vl11 Hello  out 172.16.11.111 Speak  pri 100 ip 172.16.11.115
*Mar  1 00:12:28.659: SB11: Vl11 Hello  in  172.16.11.112 Active  pri 50 ip 172.16.11.115
*Mar  1 00:12:28.659: SB11: Vl11 Speak: h/Hello rcvd from lower pri Active router (50/172.16.11.112)
*Mar  1 00:12:31.539: SB11: Vl11 Hello  in  172.16.11.112 Active  pri 50 ip 172.16.11.115
*Mar  1 00:12:31.539: SB11: Vl11 Speak: h/Hello rcvd from lower pri Active router (50/172.16.11.112)
*Mar  1 00:12:31.575: SB11: Vl11 Hello  out 172.16.11.111 Speak  pri 100 ip 172.16.11.115
*Mar  1 00:12:34.491: SB11: Vl11 Hello  in  172.16.11.112 Active  pri 50 ip 172.16.11.115
```

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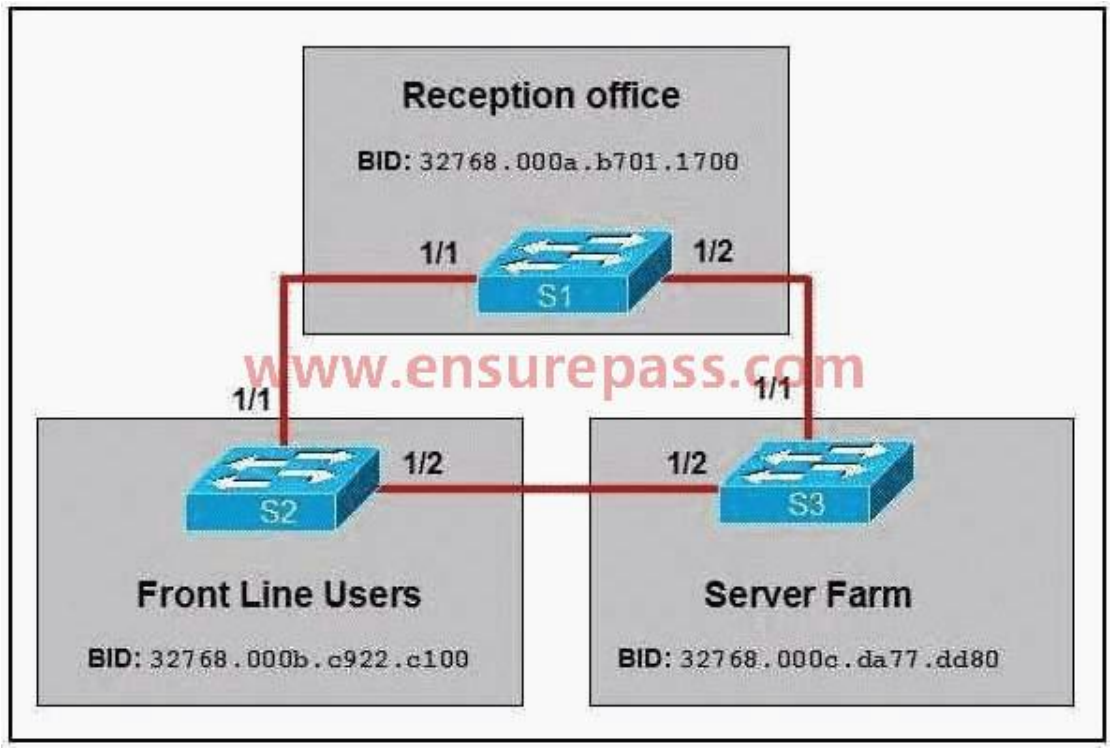
A. The preempt feature is not enabled on the 172.16.11.111 router.
B. The nonpreempt feature is enabled on the 172.16.11.112 router.
C. Router 172.16.11.111 will be the active router because its HSRP priority is preferred over router 172.16.11.112.
D. Router 172.16.11.112 will be the active router because its HSRP priority is preferred over router 172.16.11.111.
E. The IP address 172.16.11.111 is the virtual HSRP router IP address.
F. The IP address 172.16.11.112 is the virtual HSRP router IP address.

Correct Answer: A

QUESTION 79

Refer to the exhibit. All network links are FastEthernet. Although there is complete connectivity throughout the network, Front Line users report that they experience slower network performance

when accessing the server farm than the Reception office experiences. Which two statements are true? (Choose two.)



A. Changing the bridge priority of S1 to 4096 would improve network performance.
B. Changing the bridge priority of S1 to 36864 would improve network performance.
C. Changing the bridge priority of S2 to 36864 would improve network performance.
D. Changing the bridge priority of S3 to 4096 would improve network performance.
E. Disabling the Spanning Tree Protocol would improve network performance.
F. Upgrading the link between S2 and S3 to Gigabit Ethernet would improve performance.

Correct Answer: BD

QUESTION 80
What two things occur when an RSTP edge port receives a BPDU? (Choose two.)

A. The port immediately transitions to the forwarding state.
B. The switch generates a Topology Change Notification BPDU.
C. The port immediately transitions to the err-disable state.
D. The port becomes a normal STP switch port.

Correct Answer: BD

QUESTION 81
What is the effect of configuring the following command on a switch?

Switch(config) # spanning-tree portfast bpdufilter default

A. If BPDUs are received by a port configured for PortFast, then PortFast is disabled and the BPDUs are processed normally.
B. If BPDUs are received by a port configured for PortFast, they are ignored and none are sent.
C. If BPDUs are received by a port configured for PortFast, the port transitions to the forwarding state.
D. The command enables BPDU filtering on all ports regardless of whether they are configured for BPDU filtering at the interface level.

Correct Answer: A

QUESTION 82
Refer to the exhibit. Based on the debug output, which three statements about HSRP are true? (Choose three.)

```
*Mar  1 00:16:43.095: %LINK-3-UPDOWN: Interface Vlan11, changed state to up
*Mar  1 00:16:43.099: SB: Vl11 Interface up
*Mar  1 00:16:43.099: SB11: Vl11 Init: a/HSRP enabled
*Mar  1 00:16:43.099: SB11: Vl11 Init -> Listen
*Mar  1 00:16:43.295: SB11: Vl11 Hello in 172.16.11.112 Active pri 50 ip 172.16.11.115
*Mar  1 00:16:43.295: SB11: Vl11 Active router is 172.16.11.112
*Mar  1 00:16:43.295: SB11: Vl11 Listen: h/Hello rcvd from lower pri Active router (50/172.16.11.112)
*Mar  1 00:16:43.295: SB11: Vl11 Active router is local, was 172.16.11.112
*Mar  1 00:16:43.299: %STANDBY-6-STATECHANGE: Vlan11 Group 11 state Listen -> Active
*Mar  1 00:16:43.299: SB11: Vl11 Hello out 172.16.11.111 Active pri 100 ip 172.16.11.115
*Mar  1 00:16:43.303: SB11: Vl11 Hello in 172.16.11.112 Speak pri 50 ip 172.16.11.115
*Mar  1 00:16:46.207: SB11: Vl11 Hello out 172.16.11.111 Active pri 100 ip 172.16.11.115
*Mar  1 00:16:49.095: SB11: Vl11 Hello in 172.16.11.112 Speak pri 50 ip 172.16.11.115
```

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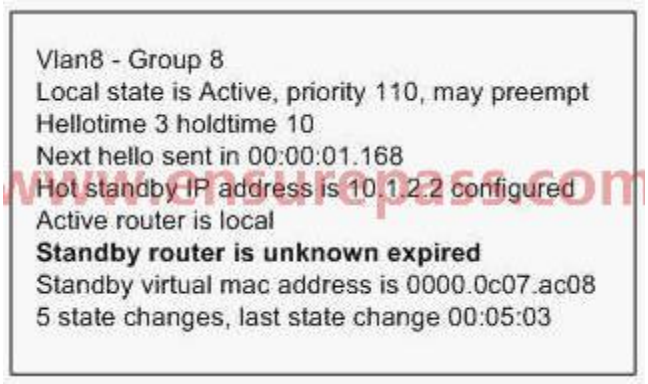
A. The final active router is the router with IP address 172.16.11.111.
B. The router with IP address 172.16.11.111 has preempt configured.
C. The priority of the router with IP address 172.16.11.112 is preferred over the router with IP address 172.16.11.111.
D. The IP address 172.16.11.115 is the virtual HSRP IP address.
E. The router with IP address 172.16.11.112 has nonpreempt configured.
F. The router with IP address 172.16.11.112 is using default HSRP priority.

Correct Answer: ABD

QUESTION 83
Refer to the exhibit. Which two problems are the most likely cause of the exhibited output? (Choose two.)


Vlan8 - Group 8
Local state is Active, priority 110, may preempt
Hellotime 3 holdtime 10
Next hello sent in 00:00:01.168
Hot standby IP address is 10.1.2.2 configured
Active router is local
Standby router is unknown expired
Standby virtual mac address is 0000.0c07.ac08
5 state changes, last state change 00:05:03

A. spanning tree issues
B. HSRP misconfiguration
C. VRRP misconfiguration
D. physical layer issues
E. transport layer issues

Correct Answer: BD

QUESTION 84
Refer to the exhibit. What does the command channel-group 1 mode desirable do?

A. enables LACP unconditionally
B. enables PAgP only if a PAgP device is detected
C. enables PAgP unconditionally
D. enables EtherChannel only
E. enables LACP only if an LACP device is detected

Correct Answer: C

QUESTION 85
Refer to the exhibit. Which two statements are true? (Choose two.)

```
3560# show interface gigabitethernet 0/1 switchport
Name: Gi0/1
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Voice VLAN: none
Administrative private-vlan host-association: none
Administrative private-vlan mapping: none
Administrative private-vlan trunk native VLAN: none
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk private VLANs: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

3560# show vlan

VLAN Name                              Status    Ports
---- --------------------------------- --------- -------------------------------
1    default                           active    Gi0/2, Gi0/3, Gi0/4, Gi0/5
2    VLAN0002                          active    Gi0/6, Gi0/7, Gi0/8, Gi0/9
                                                 Gi0/10, Gi0/11, Gi0/12

1002 fddi-default                      act/unsup
1003 token-ring-default                act/unsup
1004 fddinet-default                   act/unsup
1005 trnet-default                     act/unsup
```

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A. Interface gigabitethernet 0/1 has been configured as Layer 3 ports.
B. Interface gigabitethernet 0/1 does not appear in the show vlan output because switchport is enabled.
C. Interface gigabitethernet 0/1 does not appear in the show vlan output because it is configured as a trunk interface.
D. VLAN2 has been configured as the native VLAN for the 802.1q trunk on interface gigabitethernet 0/1.
E. Traffic on VLAN 1 that is sent out gigabitethernet 0/1 will have an 802.1q header applied.
F. Traffic on VLAN 2 that is sent out gigabitethernet 0/1 will have an 802.1q header applied.

Correct Answer: CF

QUESTION 86

Which two statements about HSRP, VRRP, and GLBP are true? (Choose two.)

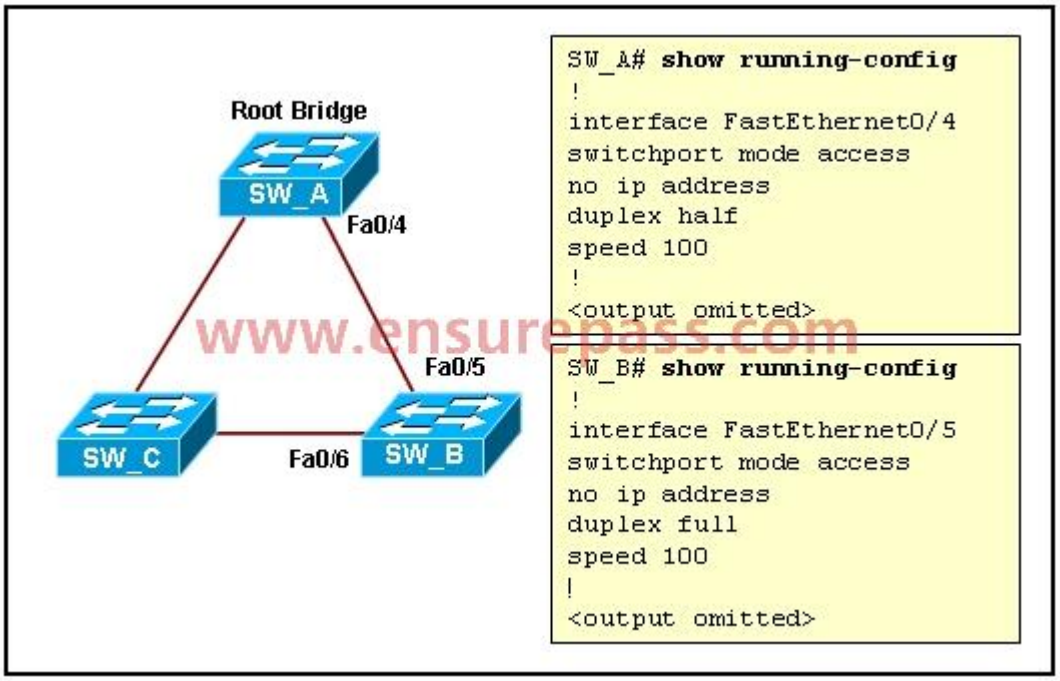
A. GLBP allows for router load balancing of traffic from a network segment without the different host IP configurations needed to achieve the same results with HSRP.
B. GLBP allows for router load balancing of traffic from a network segment by utilizing the creation of multiple standby groups.
C. GLBP and VRRP allow for MD5 authentication, whereas HSRP does not.
D. Unlike HSRP and VRRP, GLBP allows automatic selection and simultaneous use of multiple available gateways.
E. HSRP allows for multiple upstream active links being simultaneously used, whereas GLBP does not.

Correct Answer: AD

QUESTION 87
Refer to the exhibit and the partial configuration of switch SW_A and SW_B. STP is configured on all switches in the network. SW_B receives this error message on the console port:

00:06:34: %CDP-4-DUPLEX_MISMATCH: duplex mismatch discovered on FastEthernet0/5 (not half duplex), with SW_A FastEthernet0/4 (half duplex), with TBA05071417(Cat6K-B) 0/4 (half duplex).

What is the possible outcome of the problem?



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A. The root port on switch SW_A will automatically transition to full-duplex mode.
B. The root port on switch SW_B will fall back to full-duplex mode.
C. The interfaces between switches SW_A and SW_B will transition to a blocking state.
D. Interface Fa0/6 on switch SW_B will transition to a forwarding state and create a bridging loop.

Correct Answer: D

QUESTION 88

Refer to the exhibit. Which statement is true?

```
Router(config)# vlan access-map pass 10
Router(config-access-map)# match ip address ABC
Router(config-access-map)# action forward
Router(config-access-map)# vlan filter pass vlan-list 5-10
```

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A. IP traffic matching access list ABC is forwarded through VLANs 5-10.
B. IP traffic matching VLAN list 5-10 is forwarded, and all other traffic is dropped.
C. All VLAN traffic matching VLAN list 5-10 is forwarded, and all traffic matching access list ABC is dropped.
D. All VLAN traffic in VLANs 5-10 that match access list ABC is forwarded, and all other traffic is dropped.

Correct Answer: D

QUESTION 89

Which two statements about HSRP are true? (Choose two.)

A. Load sharing with HSRP is achieved by creating multiple subinterfaces on the HSRP routers.
B. Load sharing with HSRP is achieved by creating HSRP groups on the HSRP routers.
C. Routers configured for HSRP must belong only to one group per HSRP interface.
D. Routers configured for HSRP can belong to multiple groups and multiple VLANs.
E. All routers configured for HSRP load balancing must be configured with the same priority.

Correct Answer: BD

QUESTION 90

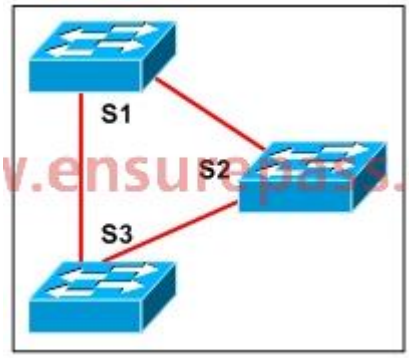
Which statement about 802.1x port-based authentication is true?

A. Hosts are required to have an 802.1x authentication client or utilize PPPoE.
B. Before transmitting data, an 802.1x host must determine the authorization state of the switch.
C. RADIUS is the only supported authentication server type.
D. If a host initiates the authentication process and does not receive a response, it assumes it is not authorized.

Correct Answer: C

QUESTION 91

Refer to the exhibit. Switch S1 has been configured with the command spanning-tree mode rapid-pvst. Switch S3 has been configured with the command spanning-tree mode mst. Switch S2 is running the IEEE 802.1D instance of Spanning Tree. What is the result?



A. IEEE 802.1w and IEEE 802.1s are compatible. IEEE 802.1d is incompatible. Switches S1 and S3 can pass traffic between themselves. Neither can pass traffic to switch S2.
B. Switches S1, S2, and S3 can pass traffic between themselves.
C. Switches S1, S2, and S3 can pass traffic between themselves. However, if the topology is changed, switch S2 does not receive notification of the change.
D. IEEE 802.1d, IEEE 802.1w, and IEEE 802.1s are incompatible. All three switches must use the same standard or no traffic can pass between any of the switches.

Correct Answer: B

QUESTION 92

Refer to the exhibit. What can be concluded about VLANs 200 and 202?

```
Switch#show vlan private-vlan type

Primary Secondary Type              Interfaces
------- --------- ----------------- ----------
202                primary
200                isolated
```

A. VLAN 202 carries traffic from promiscuous ports to isolated, community, and other promiscuous ports in the same VLAN. VLAN 200 carries traffic between community ports and to promiscuous ports.
B. VLAN 202 carries traffic from promiscuous ports to isolated, community, and other promiscuous ports in the same VLAN. VLAN 200 carries traffic from isolated ports to a

promiscuous port.

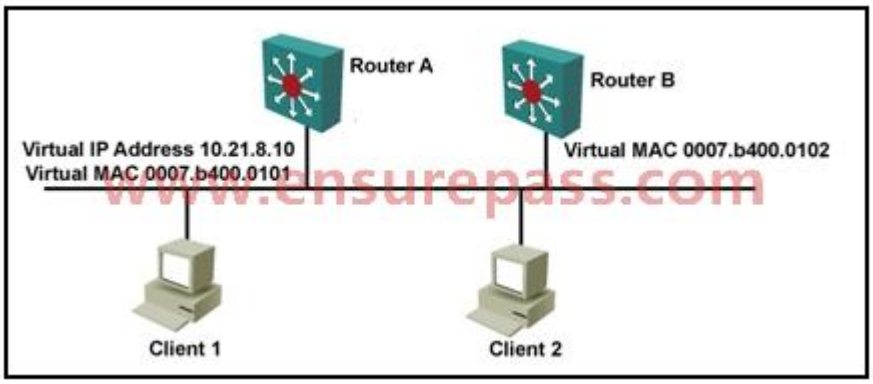
C. VLAN 200 carries traffic from promiscuous ports to isolated, community, and other promiscuous ports in the same VLAN. VLAN 202 carries traffic between community ports and to promiscuous ports.

D. VLAN 200 carries traffic from promiscuous ports to isolated, community, and other promiscuous ports in the same VLAN. VLAN 202 carries traffic from isolated ports to a promiscuous port.

Correct Answer: B

QUESTION 93

Refer to the exhibit. Both routers are configured for the GLBP. Which statement is true?



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A. The default gateway addresses of both hosts should be set to the IP addresses of both routers.

B. The default gateway address of each host should be set to the virtual IP address.

C. The hosts learn the proper default gateway IP address from router A.

D. The hosts have different default gateway IP addresses and different MAC addresses for each router.

Correct Answer: B

QUESTION 94

A switch has been configured with PVLANs. With what type of PVLAN port should the default gateway be configured?

A. isolated

B. promiscuous
C. community
D. primary
E. trunk

Correct Answer: B

QUESTION 95
In the MAC address 0000.0c07.ac03, what does the "03" represent?

A. HSRP router number 3
B. Type of encapsulation
C. HSRP group number
D. VRRP group number
E. GLBP group number

Correct Answer: C

QUESTION 96
A network is deployed using recommended practices of the enterprise campus network model, including users with desktop computers connected via IP phones. Given that all components are QoS-capable, where are the two optimal locations for trust boundaries to be configured by the network administrator? (Choose two.)

A. host
B. IP phone
C. access layer switch
D. distribution layer switch
E. core layer switch

Correct Answer: BC

QUESTION 97
What is needed to verify that a newly implemented security solution is performing as expected?

A. a detailed physical and logical topology
B. a cost analysis of the implemented solution
C. detailed logs from the AAA and SNMP servers
D. results from audit testing of the implemented solution

Correct Answer: D

QUESTION 98

When configuring port security on a Cisco Catalyst switch port, what is the default action taken by the switch if a violation occurs?

A. protect (drop packets with unknown source addresses)
B. restrict (increment Security Violation counter)
C. shut down (access or trunk port)
D. transition (the access port to a trunking port)

Correct Answer: C

QUESTION 99

Refer to the above. HSRP was implemented and configured on two switches while scheduled network maintenance was performed. After the two switches have finished rebooting, you notice via show commands that Switch2 is the HSRP active router. Which two items are the most likely cause of Switch1 not becoming the active router? (Choose two.)

```
hostname Switch1
interface Vlan10
ip address 172.16.10.32 255.255.255.0
no ip redirects
standby 1 ip 172.16.10.110
standby 1 timers 1 5
standby 1 priority 130
```

/ww.ensurepass.cor

```
hostname Switch2
interface Vlan10
Âip address 172.16.10.33 255.255.255.0
no ip redirects
standby 1 ip 172.16.10.110
standby 1 timers 1 5
standby 1 priority 120
```

A. Booting has been delayed.
B. The standby group number does not match the VLAN number.
C. IP addressing is incorrect.
D. Preemption is disabled.
E. Standby timers are incorrect.
F. IP redirect is disabled.

Correct Answer: AD

QUESTION 100

Private VLANs can be configured as which three port types? (Choose three.)

A. isolated
B. protected
C. private
D. associated
E. promiscuous
F. community

Correct Answer: AEF

QUESTION 101

Refer to the exhibit. Which statement about the private VLAN configuration is true?

```
Switch# configure terminal
Switch(config)# vlan 20
Switch(config-vlan)# private-vlan primary
Switch(config-vlan)# exit
Switch(config)#vlan 501
Switch(config-vlan)# private-vlan isolated
Switch(config-vlan)# exit
Switch(config)#vlan 502
Switch(config-vlan)# private-vlan community
Switch(config-vlan)# exit
Switch(config)#vlan 503
Switch(config-vlan)# private-vlan community
Switch(config-vlan)# exit
Switch(config)#vlan 20
Switch(config-vlan)# private-vlan association 501-503
Switch(config-vlan)# end
```

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A. Only VLAN 503 will be the community PVLAN, because multiple community PVLANs are not allowed.
B. Users of VLANs 501 and 503 will be able to communicate.
C. VLAN 502 is a secondary VLAN.
D. VLAN 502 will be a standalone VLAN, because it is not associated with any other VLANs.

Correct Answer: C

QUESTION 102

When configuring a routed port on a Cisco multilayer switch, which configuration task is needed to enable that port to function as a routed port?

A. Enable the switch to participate in routing updates from external devices with the router

command in global configuration mode.

B. Enter the no switchport command to disable Layer 2 functionality at the interface level.

C. Each port participating in routing of Layer 3 packets must have an IP routing protocol assigned on a per-interface level.

D. Routing is enabled by default on a multilayer switch, so the port can become a Layer 3 routing interface by assigning the appropriate IP address and subnet information.

Correct Answer: B

QUESTION 103

You have configured a Cisco Catalyst switch to perform Layer 3 routing via an SVI and you have assigned that interface to VLAN 20. To check the status of the SVI, you issue the show interfaces vlan 20 command at the CLI prompt. You see from the output display that the interface is in an up/up state. What must be true in an SVI configuration to bring the VLAN and line protocol up?

A. The port must be physically connected to another Layer 3 device.

B. At least one port in VLAN 20 must be active.

C. The Layer 3 routing protocol must be operational and receiving routing updates from neighboring peer devices.

D. Because this is a virtual interface, the operational status is always in an "up/up" state.

Correct Answer: B

QUESTION 104

Refer to the exhibit, which is from a Cisco Catalyst 3560 Series Switch. Which statement about the Layer 3 routing functionality of the interface is true?

```
Switch# configure terminal
Switch(config)# interface gigabitethernet0/2
Switch(config-if)# no switchport
Switch(config-if)# ip address 192.20.135.21 255.255.255.0
Switch(config-if)# no shutdown
```

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A. The interface is configured correctly for Layer 3 routing capabilities.

B. The interface needs an additional configuration entry to enable IP routing protocols.

C. Since the interface is connected to a host device, the spanning-tree portfast command must be added to the interface.

D. An SVI interface is needed to enable IP routing for network 192.20.135.0.

Correct Answer: A

QUESTION 105

What is the result of entering the command port-channel load-balance src-dst-ip on an Ether Channel link?

A. Packets are distributed across the ports in the channel based on the source and destination MAC addresses.
B. Packets are distributed across the ports in the channel based on the source and destination IP addresses.
C. Packets are balanced across the ports in the channel based first on the source MAC address, then on the destination MAC address, then on the IP address.
D. Packets are distributed across the access ports in the channel based first on the source IP address and then on the destination IP addresses.

Correct Answer: B

QUESTION 106

Which Cisco IOS command globally enables port-based authentication on a switch?

A. aaa port-auth enable
B. radius port-control enable
C. dot1x system-auth-control
D. switchport aaa-control enable

Correct Answer: C

QUESTION 107

Which two steps are necessary to configure inter-VLAN routing between multilayer switches? (Choose two.)

A. Configure a dynamic routing protocol.
B. Configure SVI interfaces with IP addresses and subnet masks.
C. Configure access ports with network addresses.
D. Configure switch ports with the autostate exclude command.
E. Document the MAC addresses of the switch ports.

Correct Answer: AB

QUESTION 108

Which statement correctly describes enabling BPDU guard on an access port that is also enabled for PortFast?

A. Upon startup, the port transmits 10 BPDUs. If the port receives a BPDU, PortFast and BPDU

guard are disabled on that port and it assumes normal STP operation.

B. The access port ignores any received BPDU.
C. If the port receives a BPDU, it is placed into the error-disable state.
D. BPDU guard is configured only globally and the BPDU filter is required for port-level configuration.

Correct Answer: C

QUESTION 109

Which statement about the Port Aggregation Protocol is true?

A. Configuration changes made on the port-channel interface apply to all physical ports assigned to the port-channel interface.
B. Configuration changes made on a physical port that is a member of a port-channel interface apply to the port-channel interface.
C. Configuration changes are not permitted with Port Aggregation Protocol. Instead, the standardized Link Aggregation Control Protocol should be used if configuration changes are required.
D. The physical port must first be disassociated from the port-channel interface before any configuration changes can be made.

Correct Answer: A

QUESTION 110

In which three HSRP states do routers send hello messages? (Choose three.)

A. standby
B. learn
C. listen
D. speak
E. active

Correct Answer: ADE

QUESTION 111

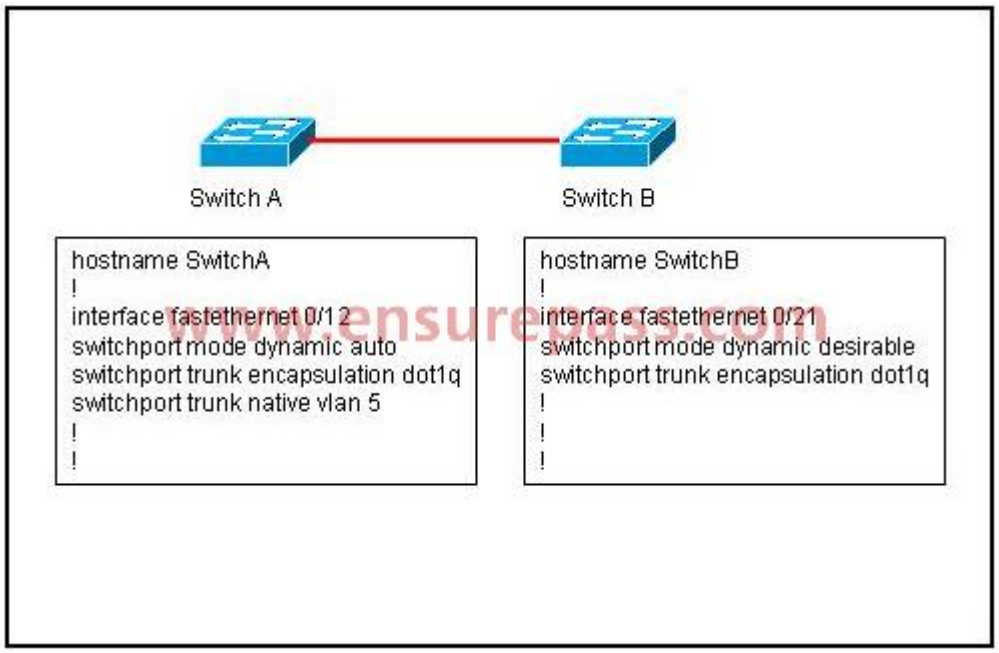
Which statement about 802.1Q trunking is true?

A. Both switches must be in the same VTP domain.
B. The encapsulation type on both ends of the trunk does not have to match.

C. The native VLAN on both ends of the trunk must be VLAN 1.
D. In 802.1Q trunking, all VLAN packets are tagged on the trunk link, except the native VLAN.

Correct Answer: D

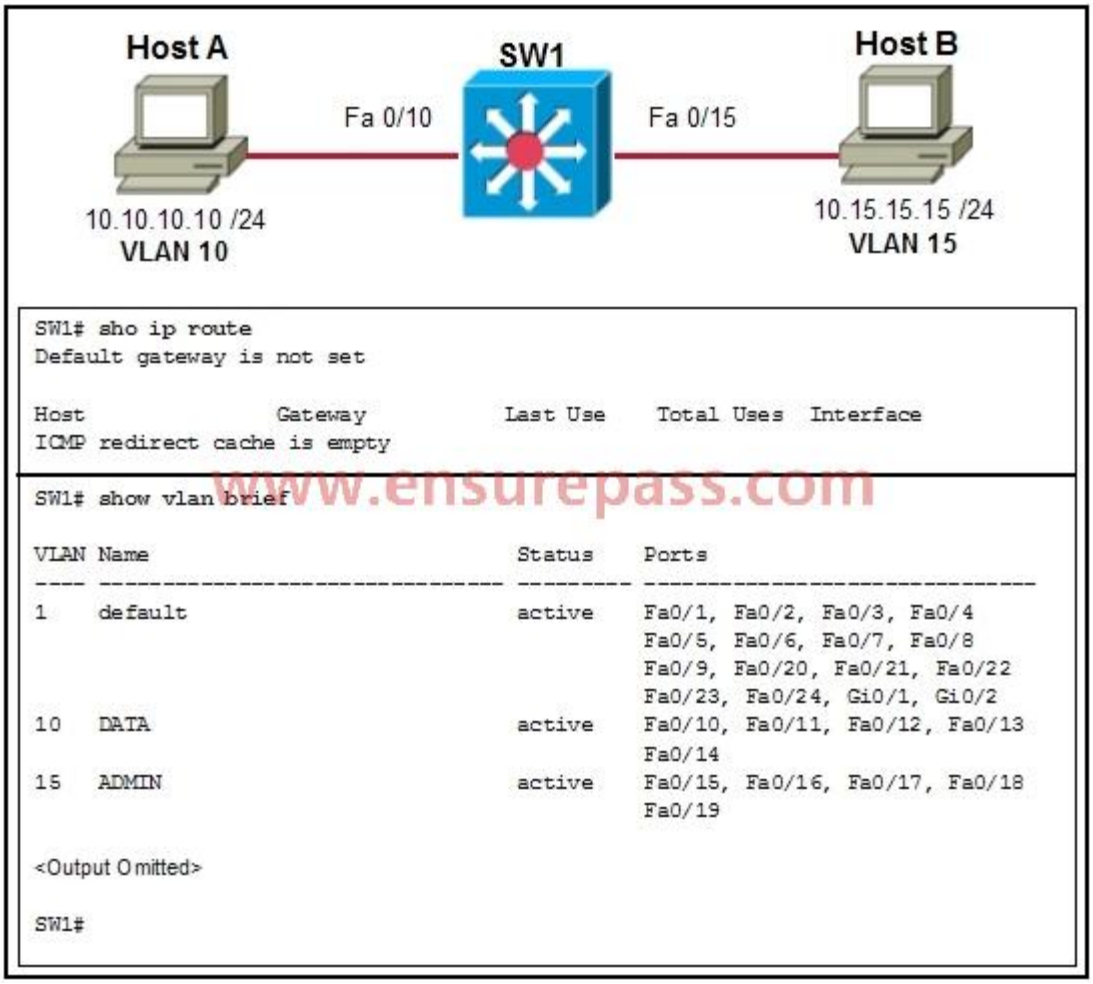
QUESTION 112
Refer to the exhibit. Which three statements are true? (Choose three.)



A. A trunk link will be formed.
B. Only VLANs 1-1001 will travel across the trunk link.
C. The native VLAN for switch B is VLAN 1.
D. DTP is not running on switch A.
E. DTP packets are sent from switch B.

Correct Answer: ACE

QUESTION 113
Refer to the exhibit. Host A and Host B are connected to the Cisco Catalyst 3550 switch and have been assigned to their respective VLANs. The rest of the 3550 configuration is the default configuration. Host A is able to ping its default gateway, 10.10.10.1, but is unable to ping Host B. Given the output in the exhibit, which statement is true?



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A. HSRP must be configured on SW1.
B. A separate router is needed to support inter-VLAN routing.
C. Interface VLAN 10 must be configured on the SW1 switch.
D. The global configuration command ip routing must be configured on the SW1 switch.
E. VLANs 10 and 15 must be created in the VLAN database mode.
F. VTP must be configured to support inter-VLAN routing.

Correct Answer: D

QUESTION 114

Refer to the exhibit. What happens when one more user is connected to interface FastEthernet 5/1?

```
Switch# show port-security interface fastethernet 5/1

Port Security:  EnabledPort
Status: SecureUp
Violation mode:  Shutdown
Maximum MAC Addresses:  11
Total MAC Addresses:  11
Configured MAC Addresses:  3
Aging time:  20 mins
Aging type:  Inactivity
SecureStatic address aging:  Enabled
Security Violation count:  0
```

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A. All secure addresses age out and are removed from the secure address list. The security violation counter increments.
B. The first address learned on the port is removed from the secure address list and is replaced with the new address.
C. The interface is placed into the error-disabled state immediately, and an SNMP trap notification is sent.
D. The packets with the new source addresses are dropped until a sufficient number of secure MAC addresses are removed from the secure address list.

Correct Answer: C

QUESTION 115

Refer to the exhibit. What happens to traffic within VLAN 14 with a source address of 172.16.10.5?

```
Switch# show ip access-lists net_10
Extended IP access list net_10
    10 permit ip 10.0.0.0 0.255.255.255 any

Switch# conf t
Switch(config)# vlan access-map thor 10
Switch(config-access-map)# match ip address net_10
Switch(config-access-map)# action forward
Switch(config-access-map)# exit
Switch(config)# vlan filter thor vlan-list 12-16
```

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A. The traffic is forwarded to the TCAM for further processing.
B. The traffic is forwarded to the router processor for further processing.
C. The traffic is dropped.
D. The traffic is forwarded without further processing.

Correct Answer: C

QUESTION 116

Which protocol allows for the automatic selection and simultaneous use of multiple available gateways as well as automatic failover between those gateways?

A. IRDP
B. HSRP
C. GLBP
D. VRRP

Correct Answer: C

QUESTION 117

This is a drag and drop question which is about the correct sequence of steps that a wireless client takes during the process of association with an access point (AP). Drag the items to the proper locations.

A --- Client initiates association process.
B --- Access point accepts association of the client.
C --- Client sends probe request.
D --- Access point sends probe response or beacon.
E --- AP adds client MAC address to association table.
1
2
3
4
5

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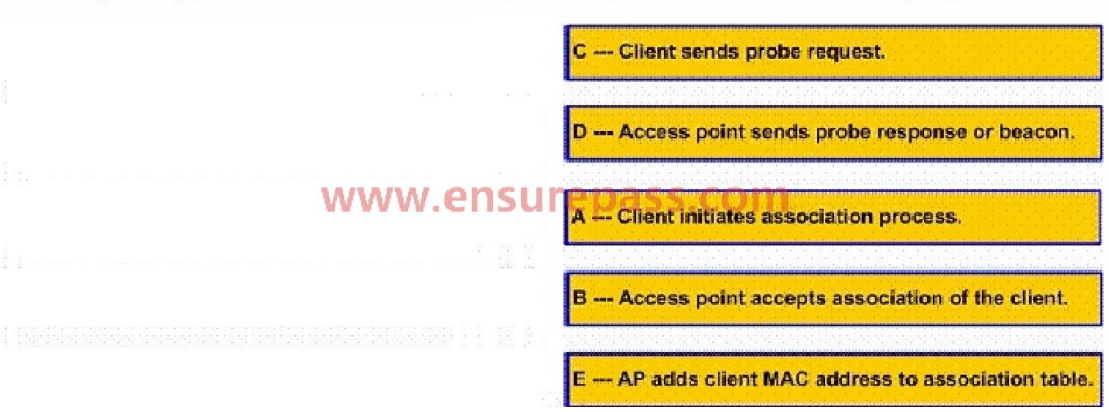
Correct Answer:


C --- Client sends probe request.
D --- Access point sends probe response or beacon.
A --- Client initiates association process.
B --- Access point accepts association of the client.
E --- AP adds client MAC address to association table.

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QUESTION 118

You work as a network administrator at Company.com. Your boss is asking you about lightweight access points WALN controller associations. What is the proper sequence a lightweight access point associates with a WLAN controller?

The lightweight AP searches for a WLAN in Layer 3 mode	1st Step
The lightweight AP searches for a wireless LAN controller using CDP in Layer 2 mode	2nd Step
The lightweight AP searches for a wireless LAN controller using LWAPP in Layer 2 mode	3rd Step
The lightweight AP chooses the AP manager with the most number of associated access points and sends the Join Request	4th Step
The lightweight AP sends a LWAPP Discovery Request to the management IP address of the wireless LAN controller via broadcast	5th Step
The lightweight AP choose the AP Manager with the least number of associated access points and sends the Join Request	6th Step
The wireless LAN controller responds with a Discovery Response from the Manager IP address	7th Step
The IP address is statically configured on the lightweight AP	8th Step
The lightweight AP requests an IP address via DHCP	9th Step
The lightweight AP sends a LWAPP Discovery Request to the management IP address of the wireless LAN controller via unicast	10th Step

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Correct Answer:

The lightweight AP searches for a WLAN in Layer 3 mode	The lightweight AP searches for a wireless LAN controller using LWAPP in Layer 2 mode
The lightweight AP searches for a wireless LAN controller using CDP in Layer 2 mode	The lightweight AP choose the AP manager with the least number of associated access points and sends the Join Request
The lightweight AP searches for a wireless LAN controller using LWAPP in Layer 2 mode	The wireless LAN controller responds with a Discovery Response from the Manager IP address
The lightweight AP chooses the AP manager with the most number of associated access points and sends the Join Request	The lightweight AP sends a LWAPP Discovery Request to the management IP address of the wireless LAN controller via unicast
The lightweight AP sends a LWAPP Discovery Request to the management IP address of the wireless LAN controller via broadcast	The lightweight AP requests an IP address via DHCP
The lightweight AP choose the AP manager with the least number of associated access points and sends the Join Request	The lightweight AP searches for a WLAN in Layer 3 mode
The wireless LAN controller responds with a Discovery Response from the Manager IP address	7th Step
The IP address is statically configured on the lightweight AP	8th Step
The lightweight AP requests an IP address via DHCP	9th Step
The lightweight AP sends a LWAPP Discovery Request to the management IP address of the wireless LAN controller via unicast	10th Step

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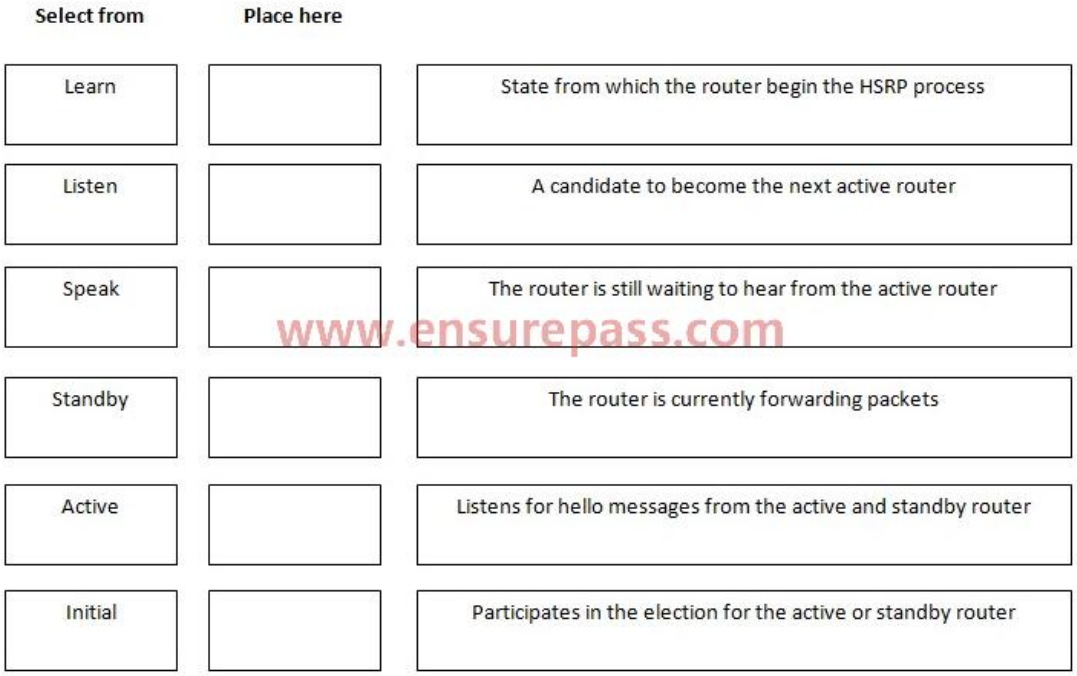
QUESTION 119

Match the HSRP states on the left with the correct definition on the right.


Select from
Place here
Learn
State from which the router begin the HSRP process
Listen
A candidate to become the next active router
Speak
The router is still waiting to hear from the active router
Standby
The router is currently forwarding packets
Active
Listens for hello messages from the active and standby router
Initial
Participates in the election for the active or standby router

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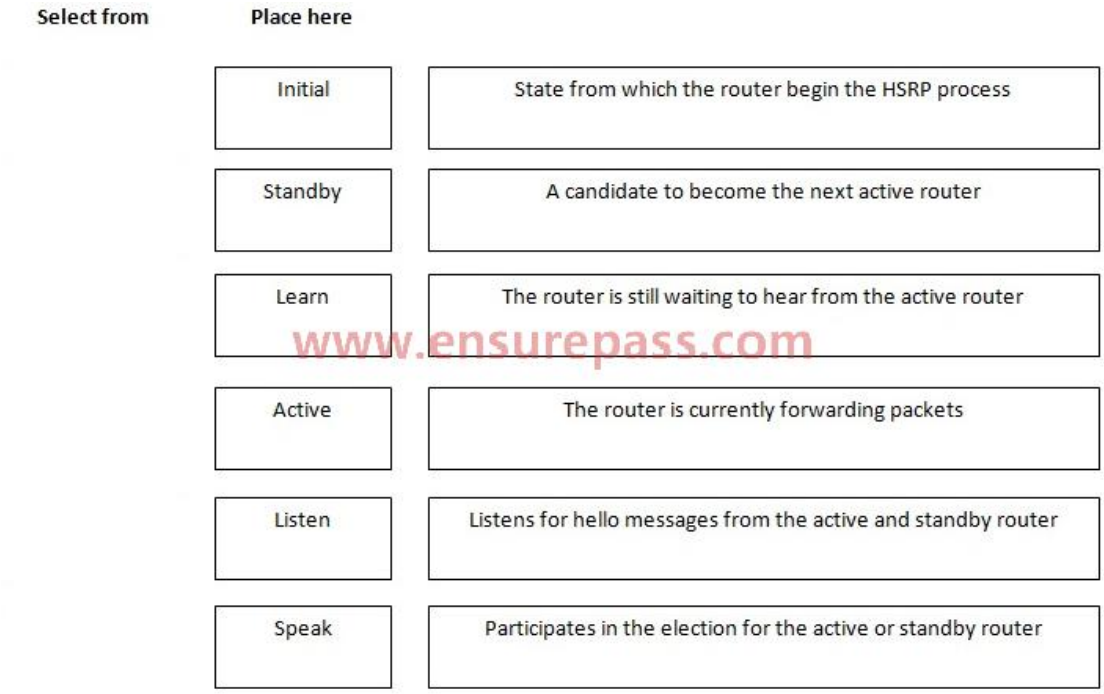
Correct Answer:


Select from
Place here
Initial
State from which the router begin the HSRP process
Standby
A candidate to become the next active router
Learn
The router is still waiting to hear from the active router
Active
The router is currently forwarding packets
Listen
Listens for hello messages from the active and standby router
Speak
Participates in the election for the active or standby router

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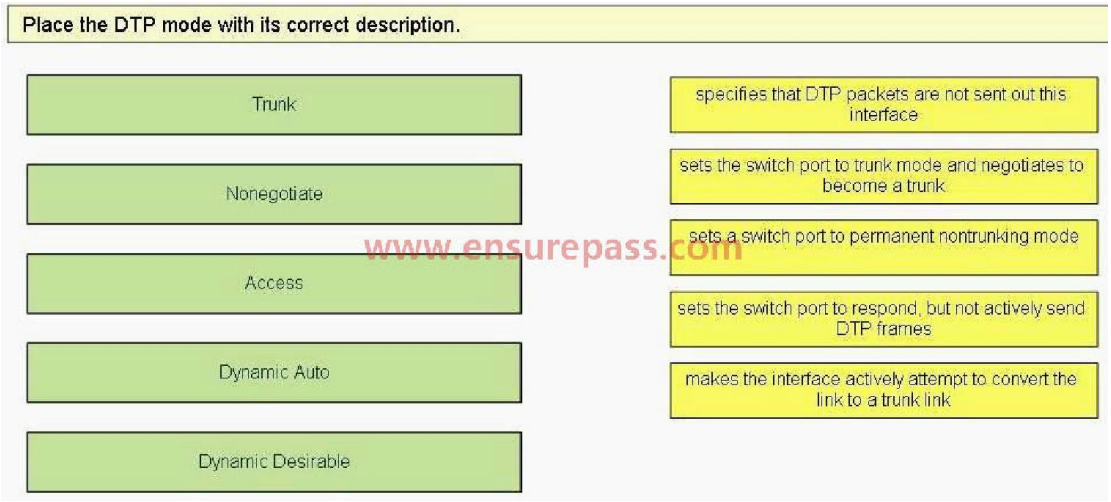
QUESTION 120

Drag and drop question. Drag the items to the proper locations.


Place the DTP mode with its correct description.
Trunk
Nonegotiate
Access
Dynamic Auto
Dynamic Desirable
specifies that DTP packets are not sent out this interface
sets the switch port to trunk mode and negotiates to become a trunk
sets a switch port to permanent nontrunking mode
sets the switch port to respond, but not actively send DTP frames
makes the interface actively attempt to convert the link to a trunk link
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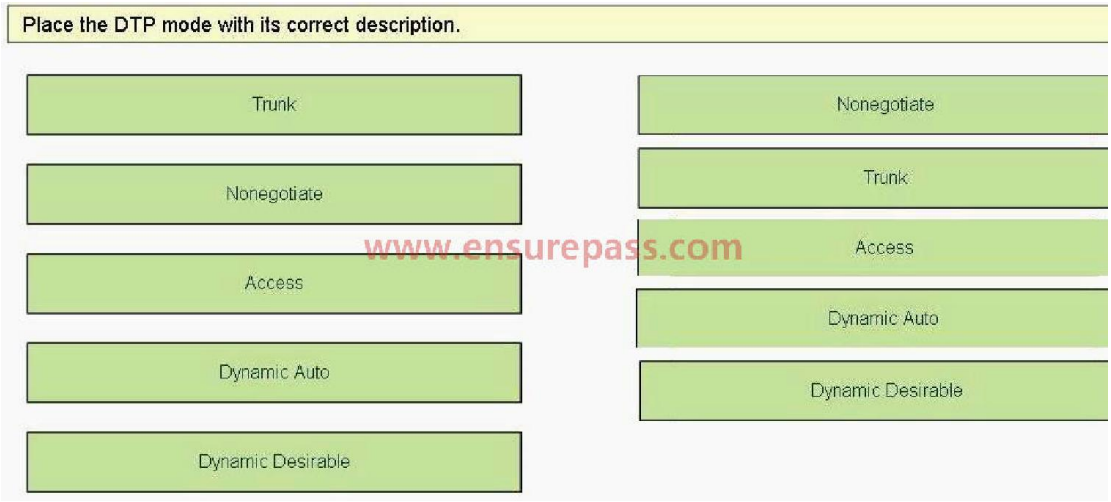
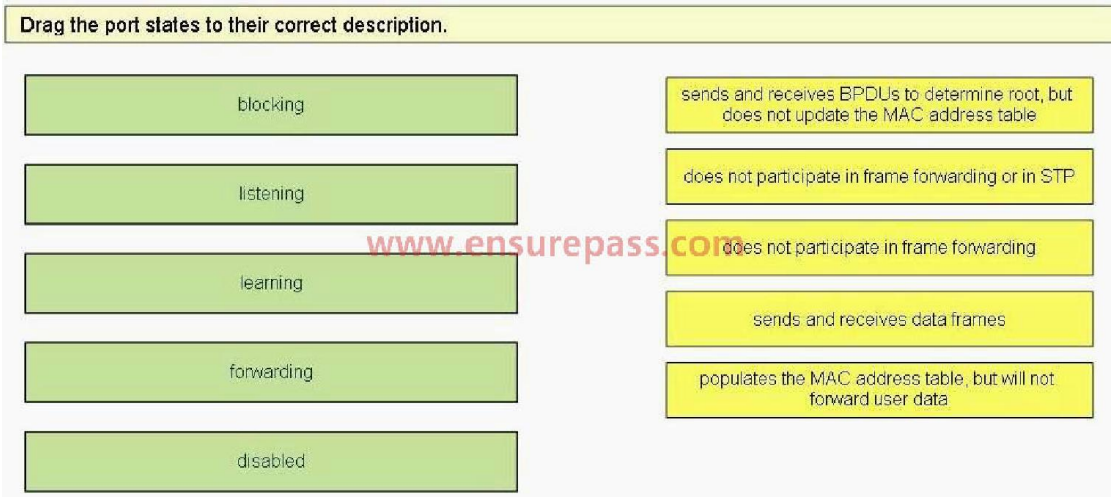
Correct Answer:



QUESTION 121

Drag and drop question. Drag the items to the proper locations.


Drag the port states to their correct description.
blocking
listening
learning
forwarding
disabled
sends and receives BPDUs to determine root, but does not update the MAC address table
does not participate in frame forwarding or in STP
does not participate in frame forwarding
sends and receives data frames
populates the MAC address table, but will not forward user data
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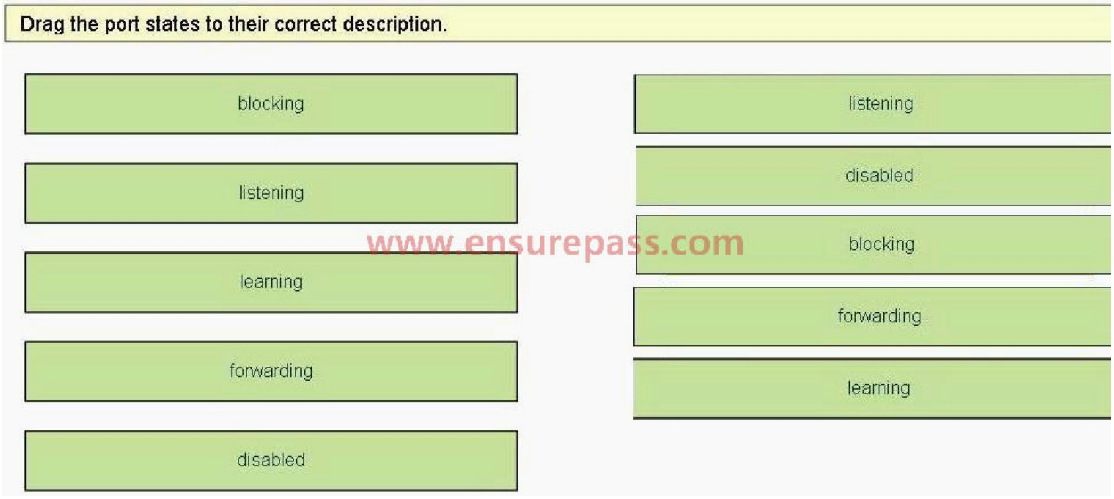
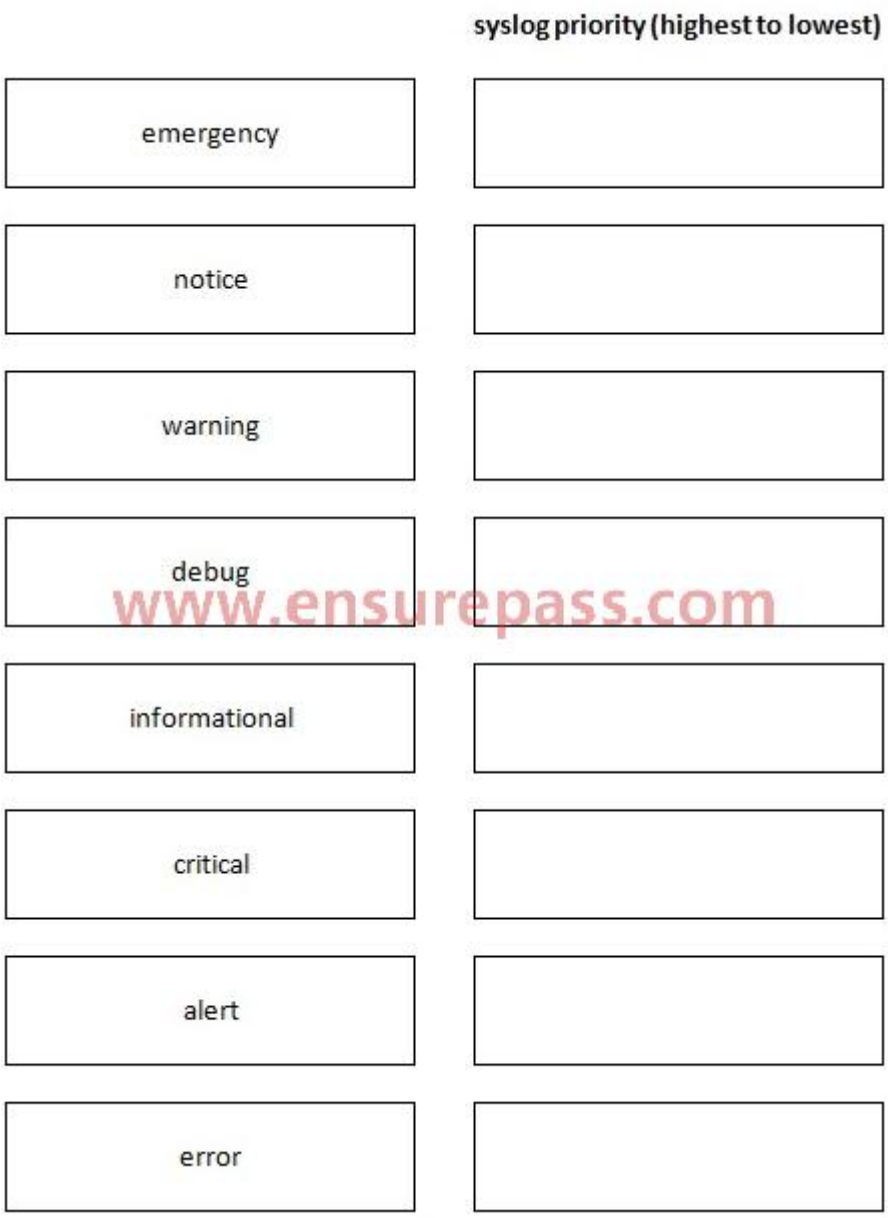
Correct Answer:



QUESTION 122

Place the syslog message types in the left to the corresponding area on the right, based on priority from highest to lowest.



www.ensurepass.com

Correct Answer:

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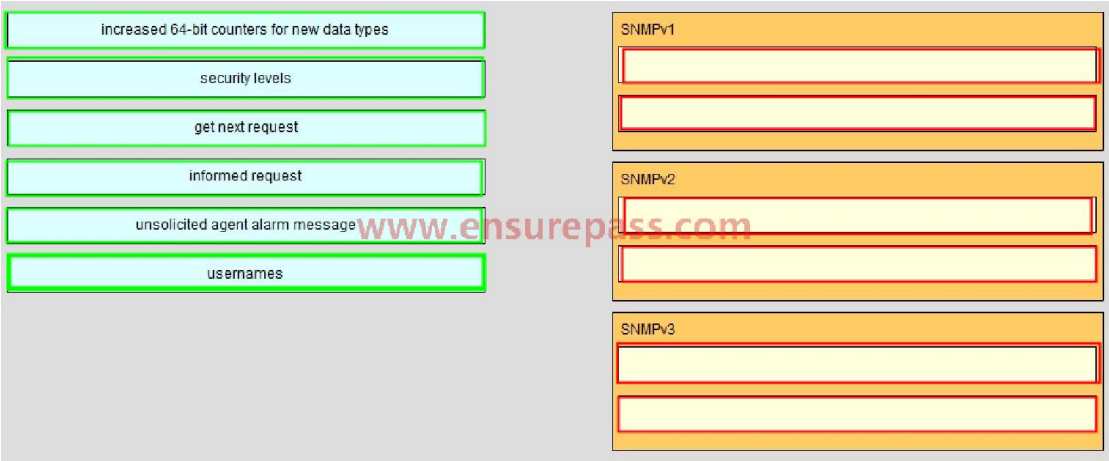
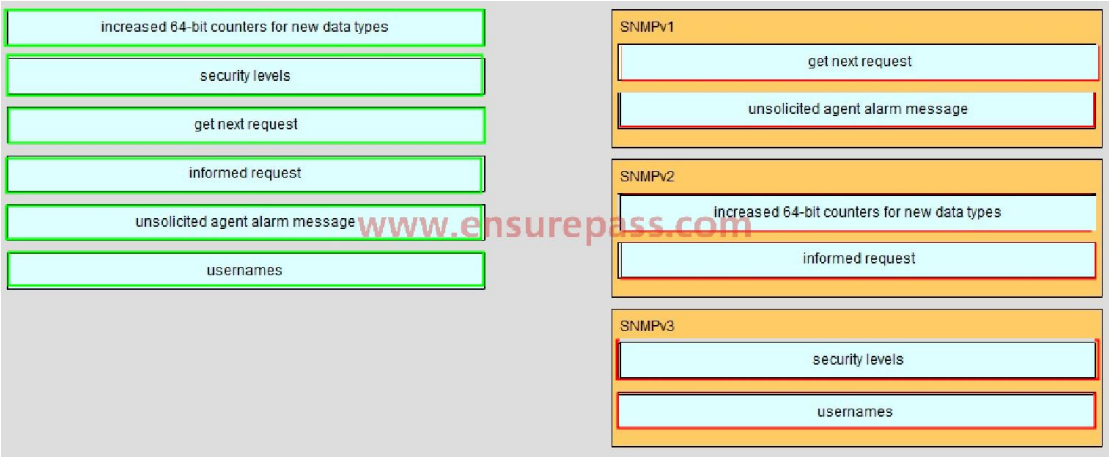
QUESTION 123

Capabilities of SNMP are dependent on the version implemented. Drag the feature descriptions on the left to the respective SNMP versions on the right.

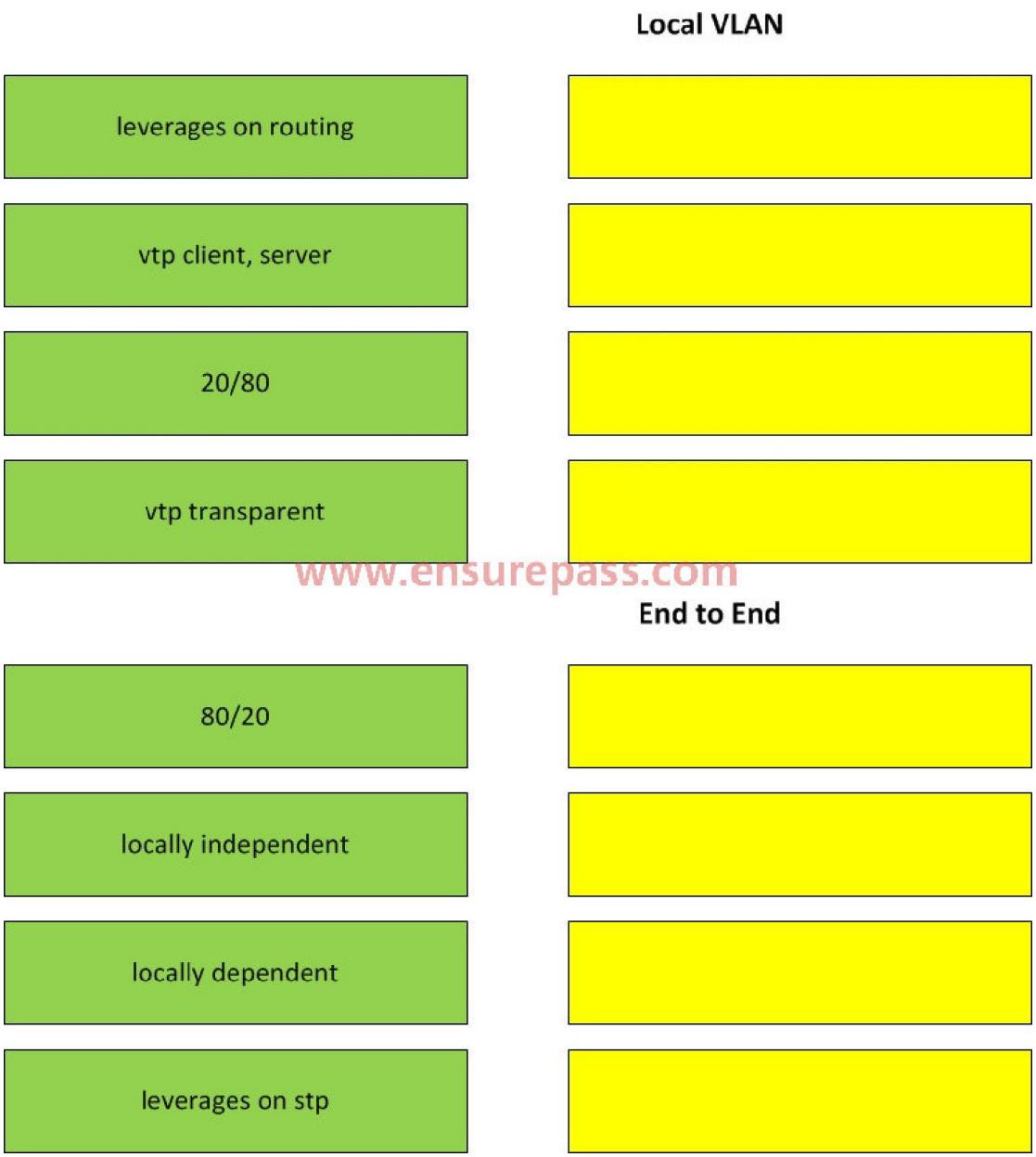


Correct Answer:



QUESTION 124

Place the local and end to end VLAN functions on the left into the associated boxes on the right.



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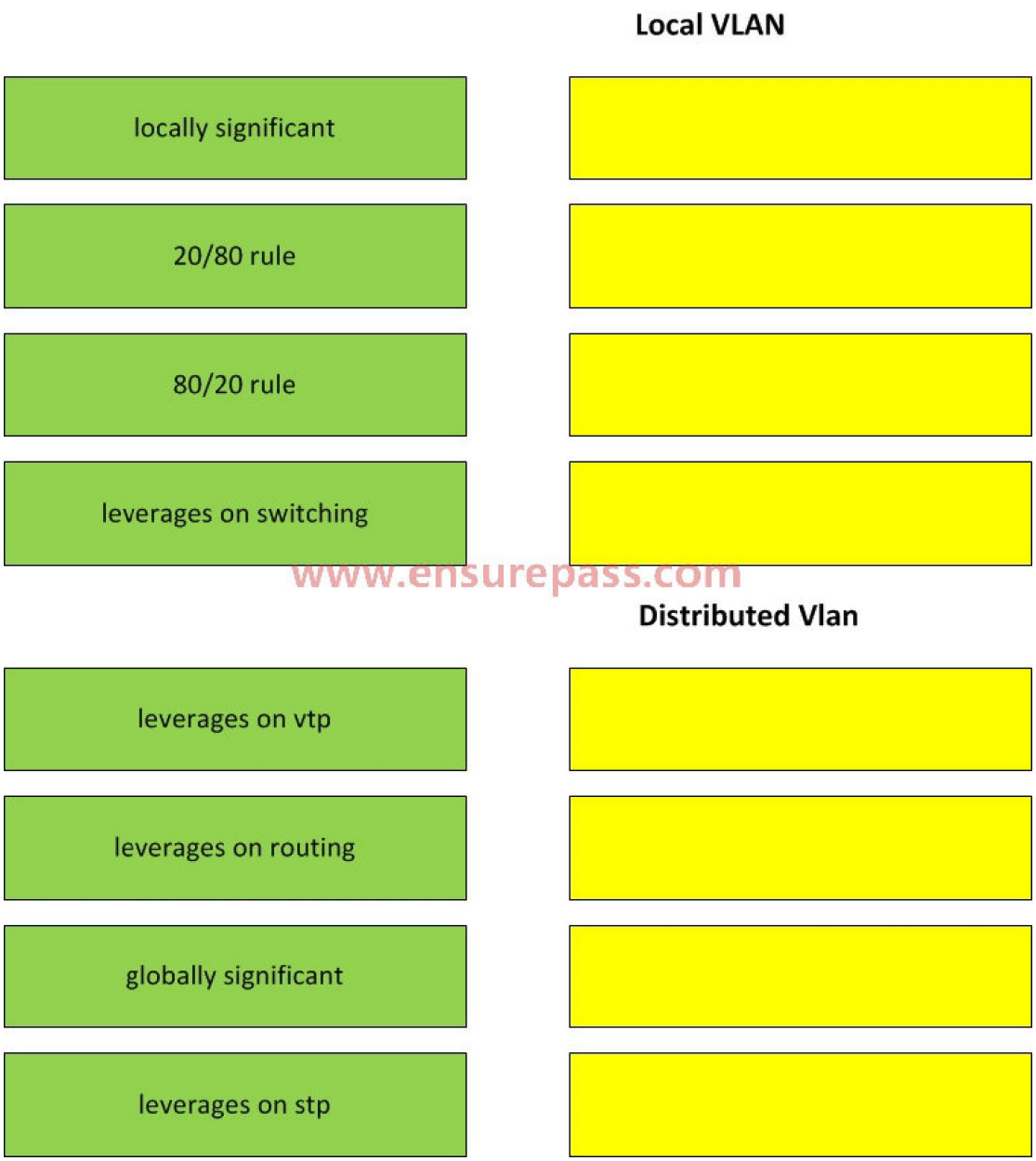
Correct Answer:

Local VLAN
leverages on routing
vtp client, server
20/80
vtp transparent
vtp transparent
20/80
locally dependent
leverages on routing
www.ensurepass.com
End to End
80/20
locally independent
locally dependent
leverages on stp
vtp client, server
80/20
locally independent
leverages on stp

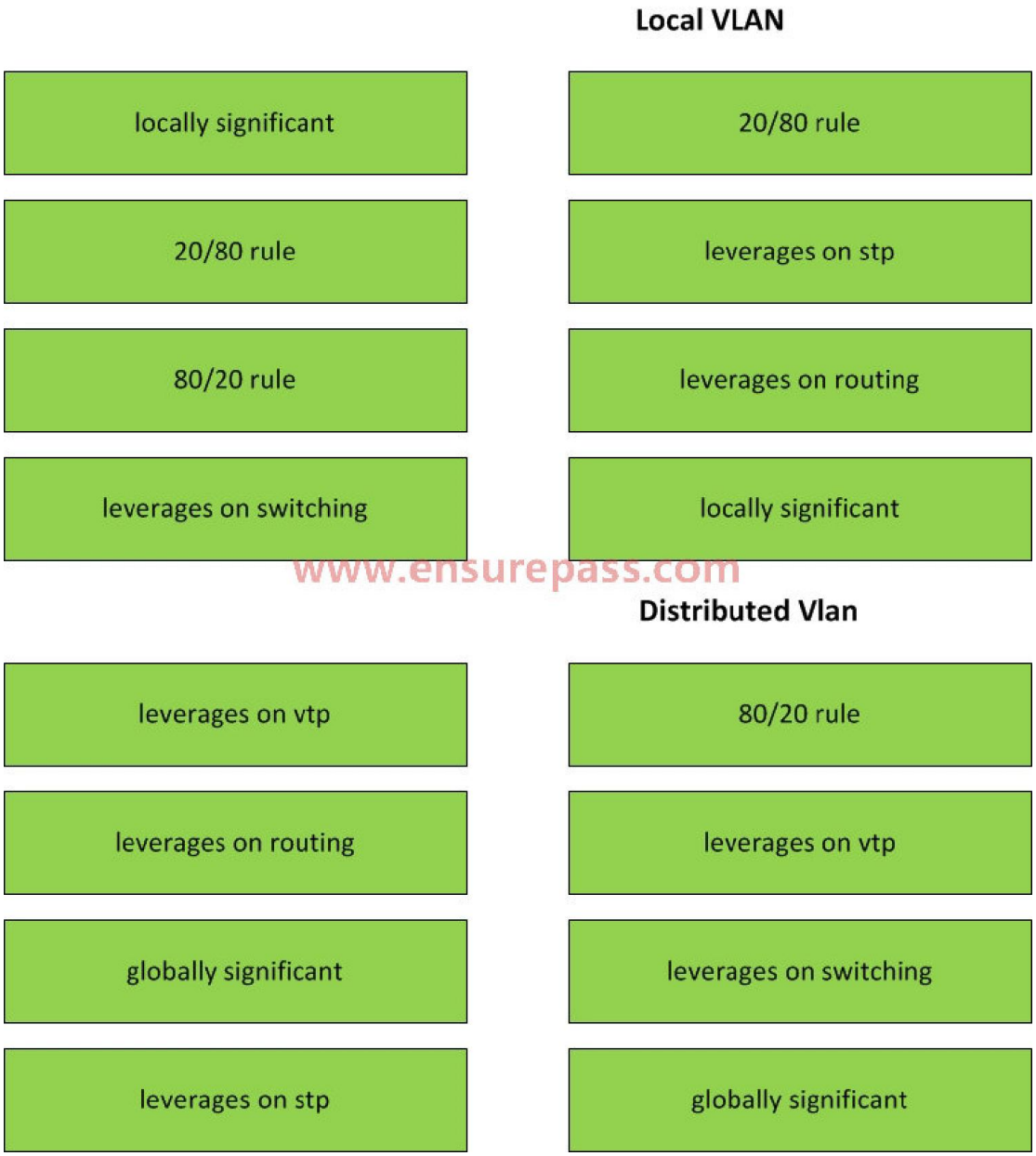
QUESTION 125

Place the local and distributed VLAN functions on the left into the associated boxes on the right.



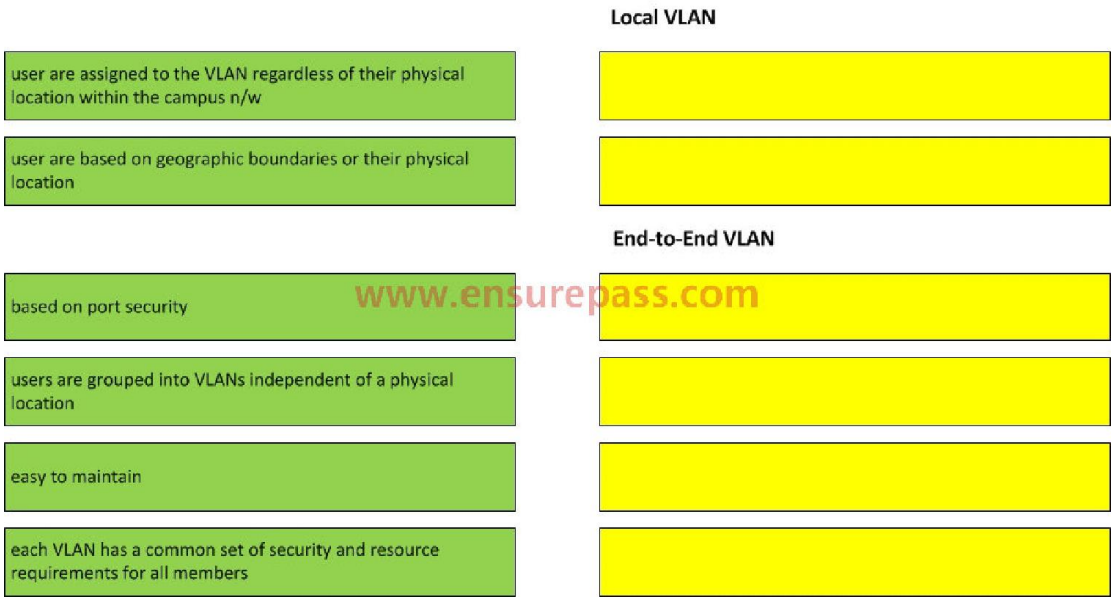
www.ensurepass.com

Correct Answer:


Local VLAN
locally significant
20/80 rule
80/20 rule
leverages on switching
20/80 rule
leverages on stp
leverages on routing
locally significant
www.ensurepass.com
Distributed Vlan
leverages on vtp
leverages on routing
globally significant
leverages on stp
80/20 rule
leverages on vtp
leverages on switching
globally significant

QUESTION 126

Place the local and end to end VLAN functions on the left into the associated boxes on the right.


Local VLAN
user are assigned to the VLAN regardless of their physical location within the campus n/w
user are based on geographic boundaries or their physical location
End-to-End VLAN
based on port security
users are grouped into VLANs independent of a physical location
easy to maintain
each VLAN has a common set of security and resource requirements for all members

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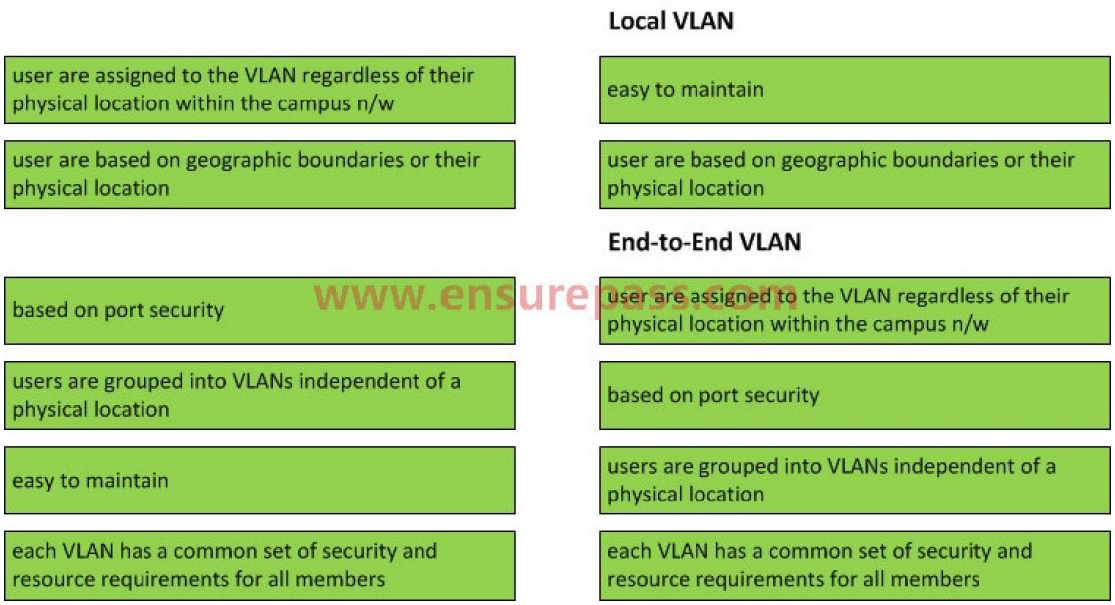
Correct Answer:


Local VLAN
user are assigned to the VLAN regardless of their physical location within the campus n/w
user are based on geographic boundaries or their physical location
easy to maintain
user are based on geographic boundaries or their physical location
End-to-End VLAN
based on port security
users are grouped into VLANs independent of a physical location
easy to maintain
each VLAN has a common set of security and resource requirements for all members
user are assigned to the VLAN regardless of their physical location within the campus n/w
based on port security
users are grouped into VLANs independent of a physical location
each VLAN has a common set of security and resource requirements for all members

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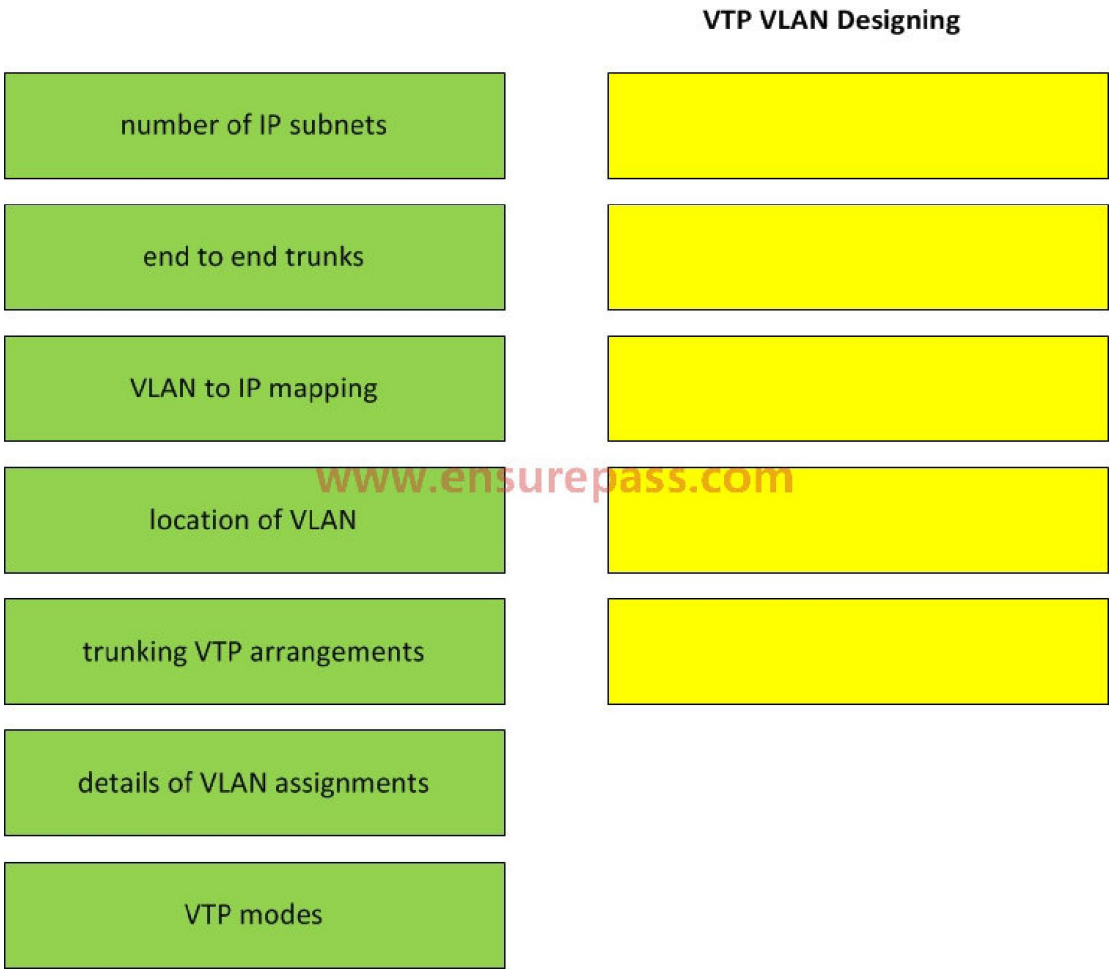
QUESTION 127

Choose the associated VTP VLAN design options on the left into the corresponding fields on the right. Not all option choices will be used.



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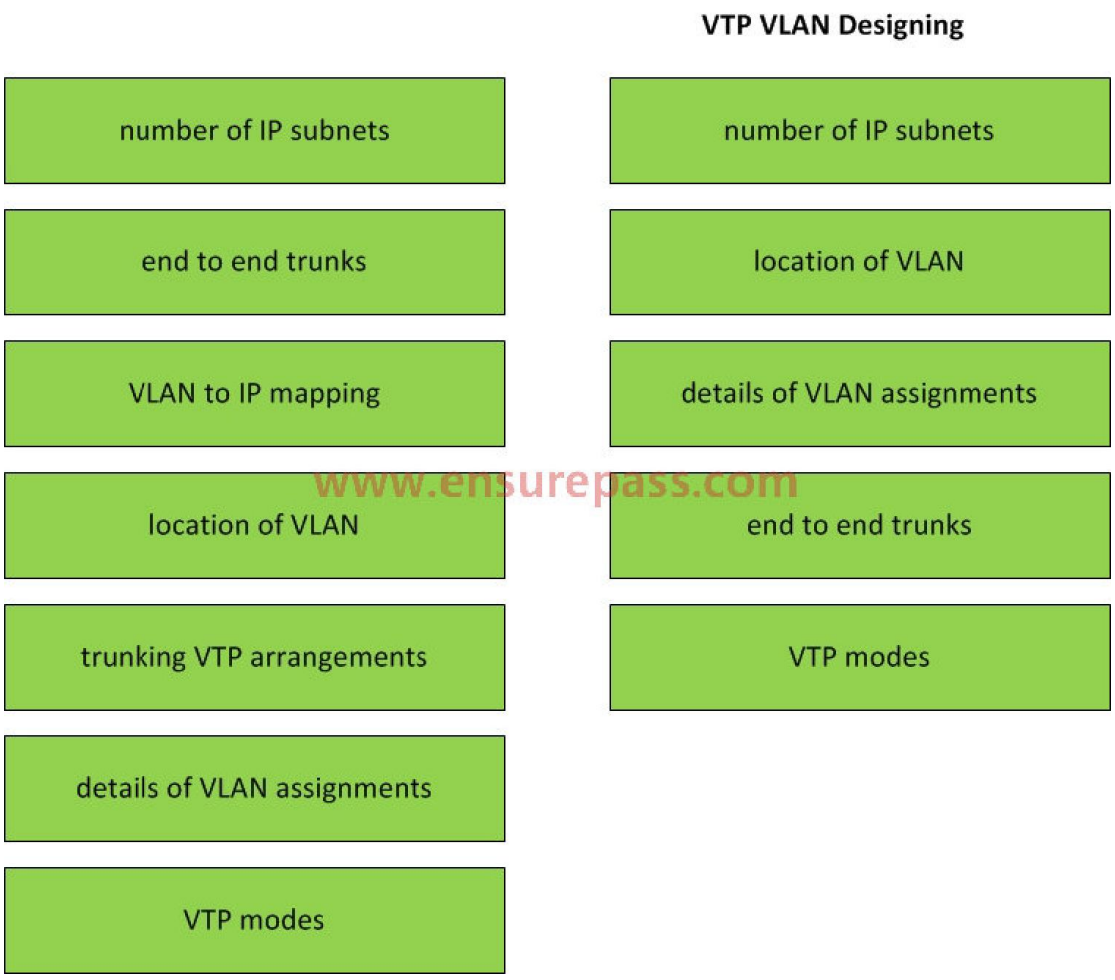
Correct Answer:



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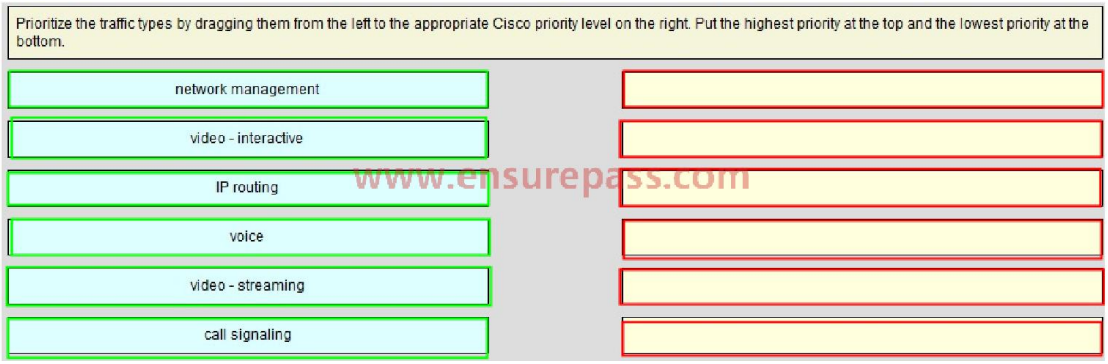
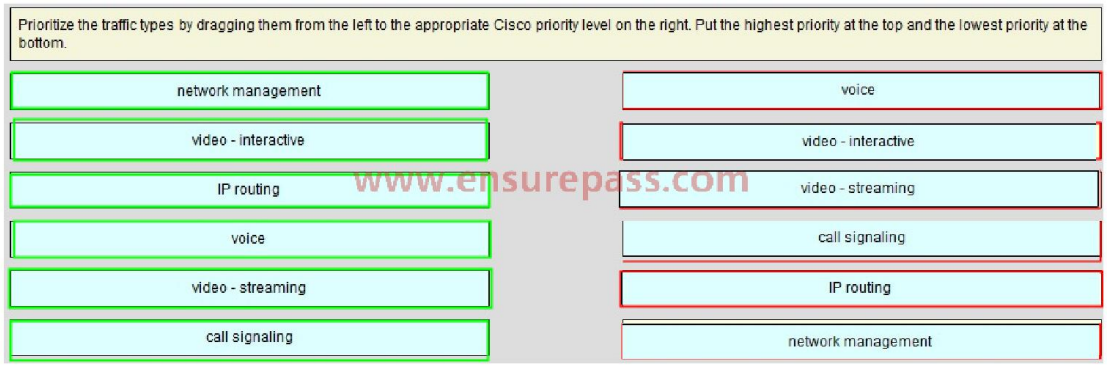
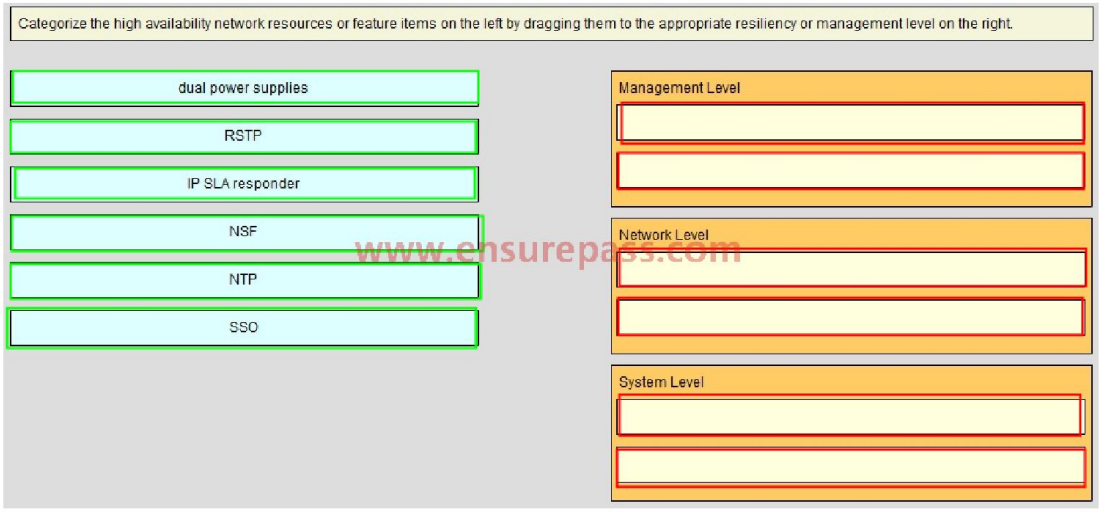
QUESTION 128


Prioritize the traffic types by dragging them from the left to the appropriate Cisco priority level on the right. Put the highest priority at the top and the lowest priority at the bottom.
network management
video - interactive
IP routing
voice
video - streaming
call signaling
www.ensurepass.com

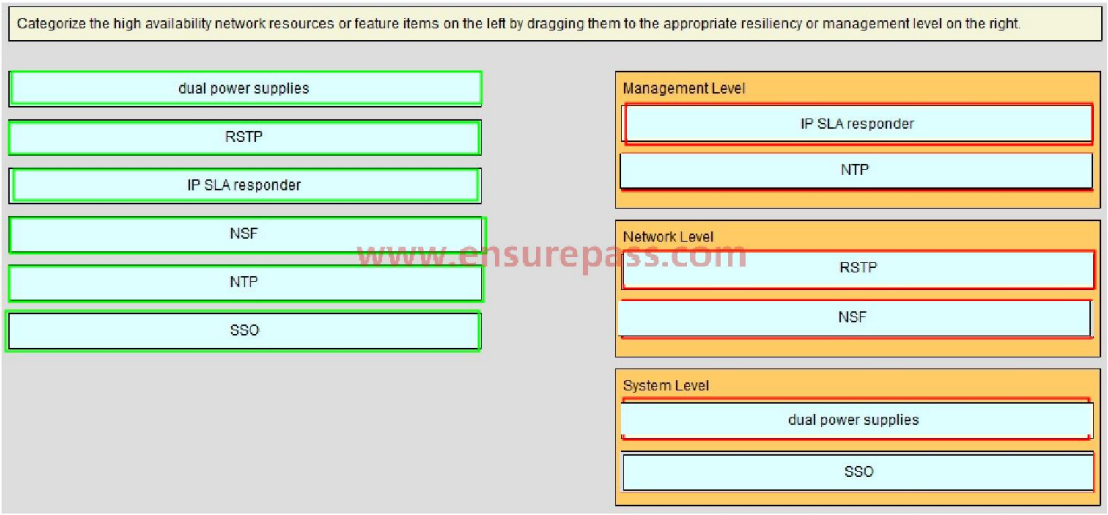
Correct Answer:


Prioritize the traffic types by dragging them from the left to the appropriate Cisco priority level on the right. Put the highest priority at the top and the lowest priority at the bottom.
network management
video - interactive
IP routing
voice
video - streaming
call signaling
voice
video - interactive
video - streaming
call signaling
IP routing
network management
www.ensurepass.com

QUESTION 129



Correct Answer:



QUESTION 130

Drag the steps on the left that should be part of a VLAN-based verification plan to the spaces on the right. Not all choices will be used.

Verify that switchports are properly pruned	
Verify that there is inter-switch connectivity	
Verify that inter-switch connectivity	
Verify that creation of the virtual interface	
Verify that the VLAN ports are in promiscuous mode	
Verify that the VLAN is assigned to the proper ports	

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Correct Answer:

Verify that switchports are properly pruned	Verify that there is inter-switch connectivity
Verify that there is inter-switch connectivity	Verify that creation of the virtual interface
Verify that inter-switch connectivity	Verify that the VLAN is assigned to the proper ports
Verify that creation of the virtual interface	Verify that switchports are properly pruned
Verify that the VLAN ports are in promiscuous mode	
Verify that the VLAN is assigned to the proper ports	

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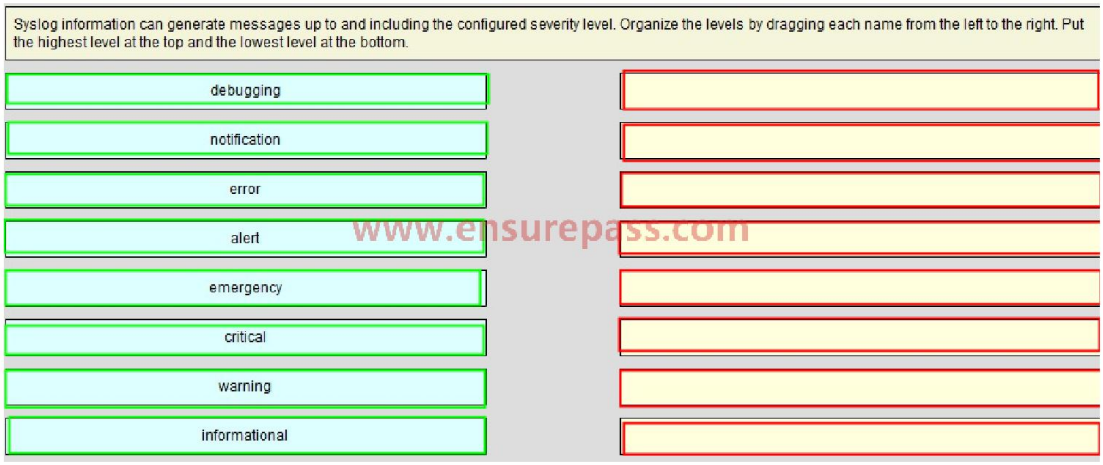
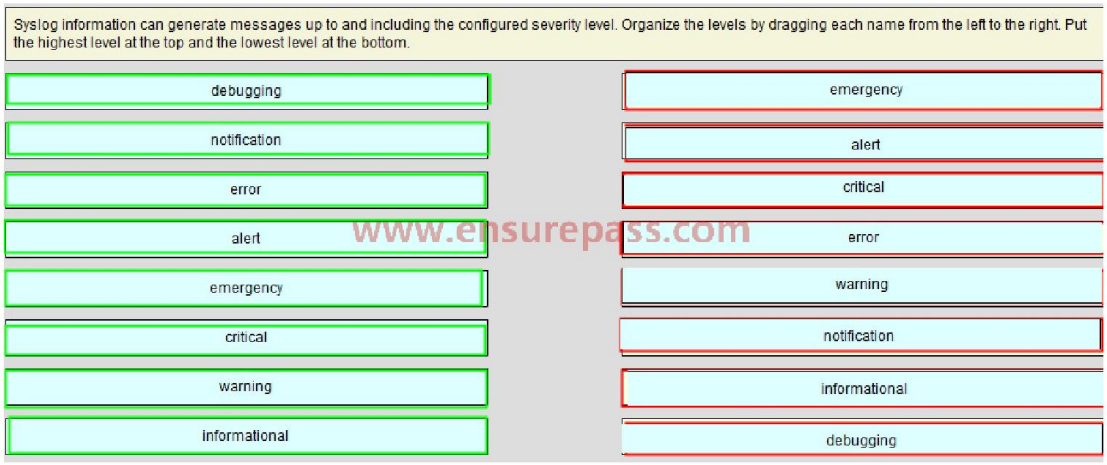
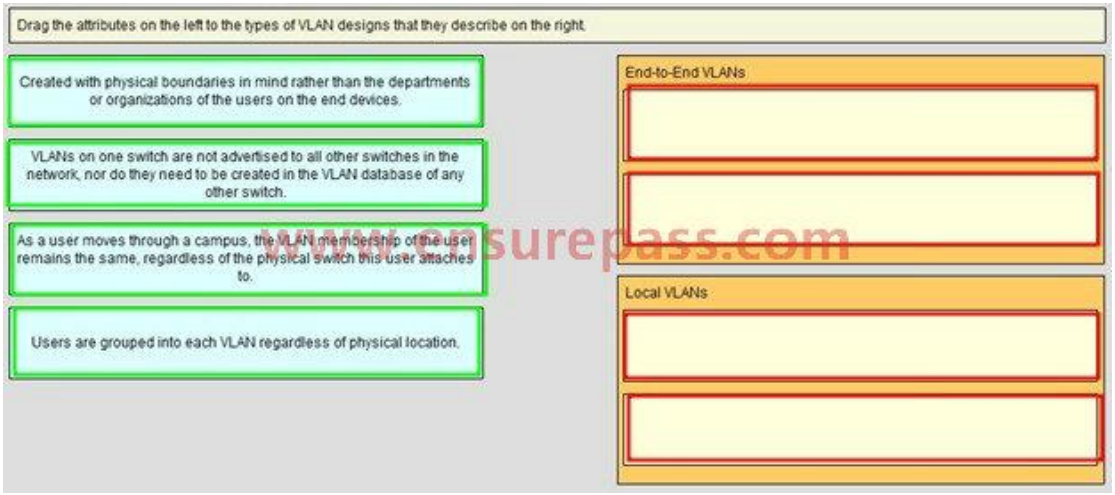
QUESTION 131


Syslog information can generate messages up to and including the configured severity level. Organize the levels by dragging each name from the left to the right. Put the highest level at the top and the lowest level at the bottom.
debugging
notification
error
alert
emergency
critical
warning
informational
www.ensurepass.com

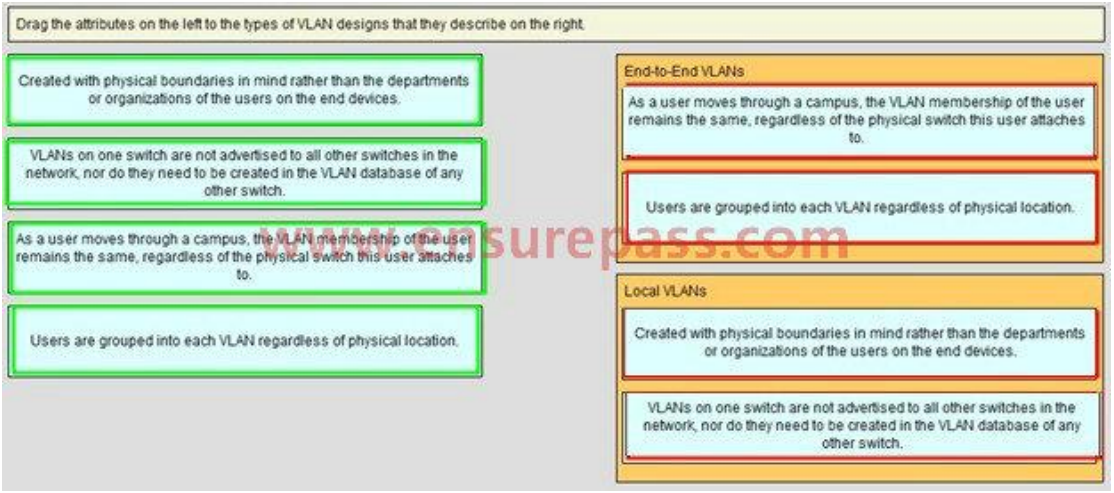
Correct Answer:



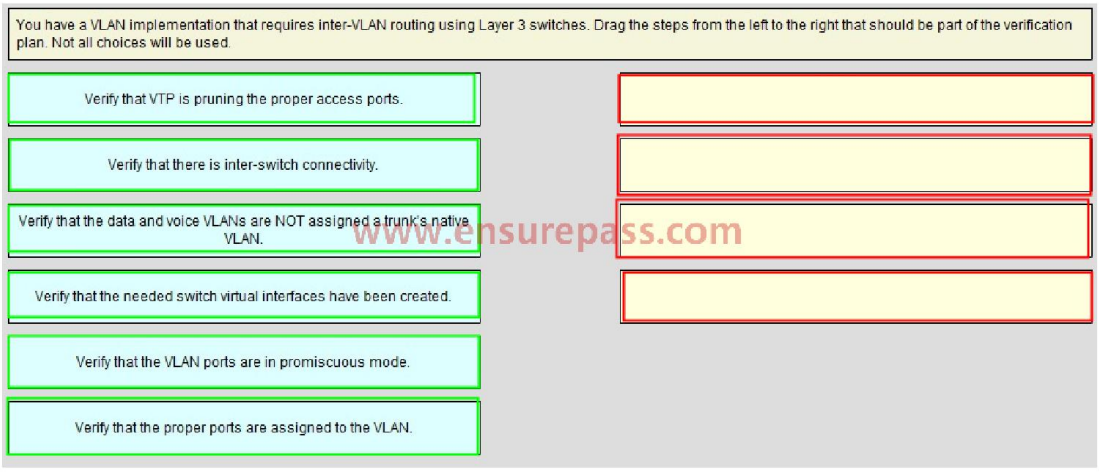
QUESTION 132


Drag the attributes on the left to the types of VLAN designs that they describe on the right.
Created with physical boundaries in mind rather than the departments or organizations of the users on the end devices.
VLANs on one switch are not advertised to all other switches in the network, nor do they need to be created in the VLAN database of any other switch.
As a user moves through a campus, the VLAN membership of the user remains the same, regardless of the physical switch this user attaches to.
Users are grouped into each VLAN regardless of physical location.
End-to-End VLANs
Local VLANs

Correct Answer:


Drag the attributes on the left to the types of VLAN designs that they describe on the right.
Created with physical boundaries in mind rather than the departments or organizations of the users on the end devices.
VLANs on one switch are not advertised to all other switches in the network, nor do they need to be created in the VLAN database of any other switch.
As a user moves through a campus, the VLAN membership of the user remains the same, regardless of the physical switch this user attaches to.
Users are grouped into each VLAN regardless of physical location.
End-to-End VLANs
As a user moves through a campus, the VLAN membership of the user remains the same, regardless of the physical switch this user attaches to.
Users are grouped into each VLAN regardless of physical location.
Local VLANs
Created with physical boundaries in mind rather than the departments or organizations of the users on the end devices.
VLANs on one switch are not advertised to all other switches in the network, nor do they need to be created in the VLAN database of any other switch.

QUESTION 133


You have a VLAN implementation that requires inter-VLAN routing using Layer 3 switches. Drag the steps from the left to the right that should be part of the verification plan. Not all choices will be used.
Verify that VTP is pruning the proper access ports.
Verify that there is inter-switch connectivity.
Verify that the data and voice VLANs are NOT assigned a trunk's native VLAN.
Verify that the needed switch virtual interfaces have been created.
Verify that the VLAN ports are in promiscuous mode.
Verify that the proper ports are assigned to the VLAN.
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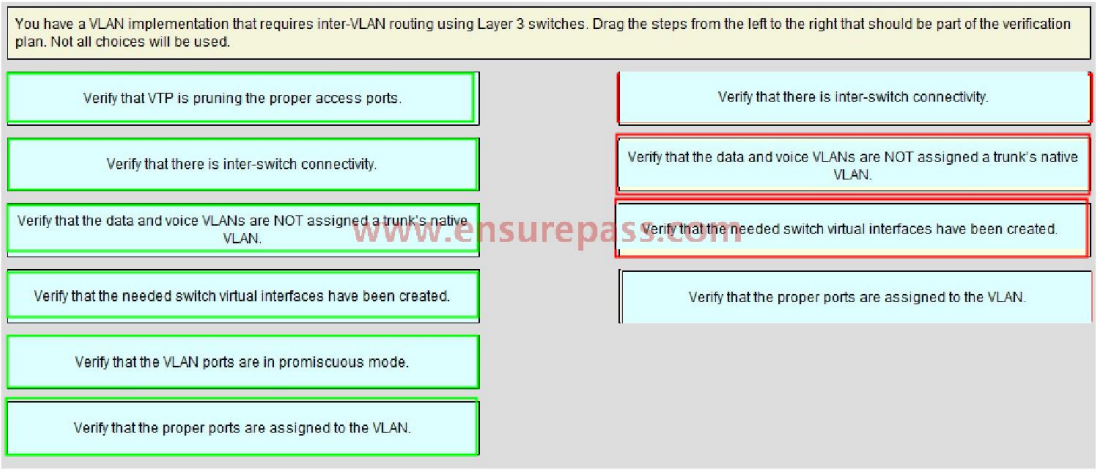
Correct Answer:


You have a VLAN implementation that requires inter-VLAN routing using Layer 3 switches. Drag the steps from the left to the right that should be part of the verification plan. Not all choices will be used.
Verify that VTP is pruning the proper access ports.
Verify that there is inter-switch connectivity.
Verify that the data and voice VLANs are NOT assigned a trunk's native VLAN.
Verify that the needed switch virtual interfaces have been created.
Verify that the VLAN ports are in promiscuous mode.
Verify that the proper ports are assigned to the VLAN.
Verify that there is inter-switch connectivity.
Verify that the data and voice VLANs are NOT assigned a trunk's native VLAN.
Verify that the needed switch virtual interfaces have been created.
Verify that the proper ports are assigned to the VLAN.
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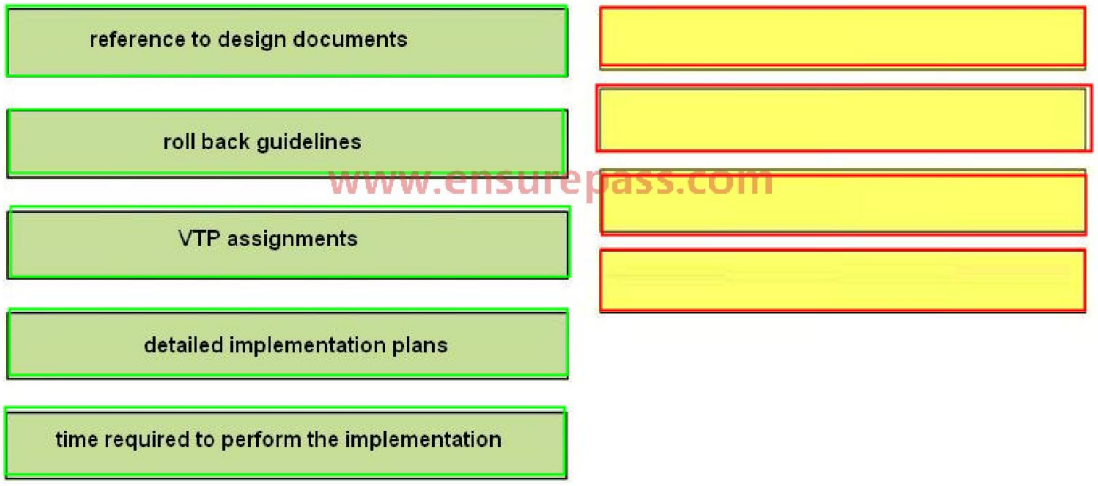
QUESTION 134

Drag the choices on the left to the boxes on the right that should be included when creating a VLAN-based implementation plan. Not all choices will be used.



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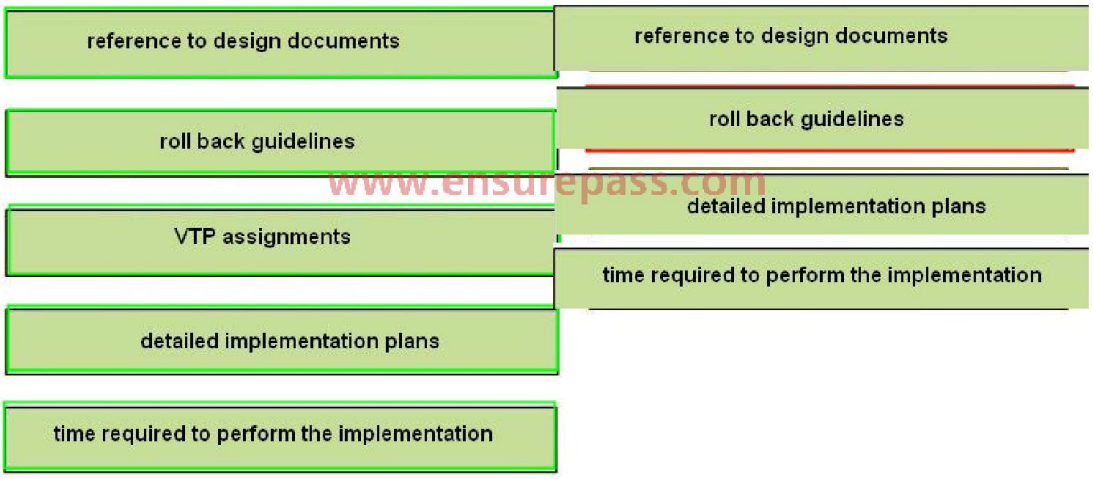
Correct Answer:

Drag the choices on the left to the boxes on the right that should be included when creating a VLAN-based implementation plan. Not all choices will be used.



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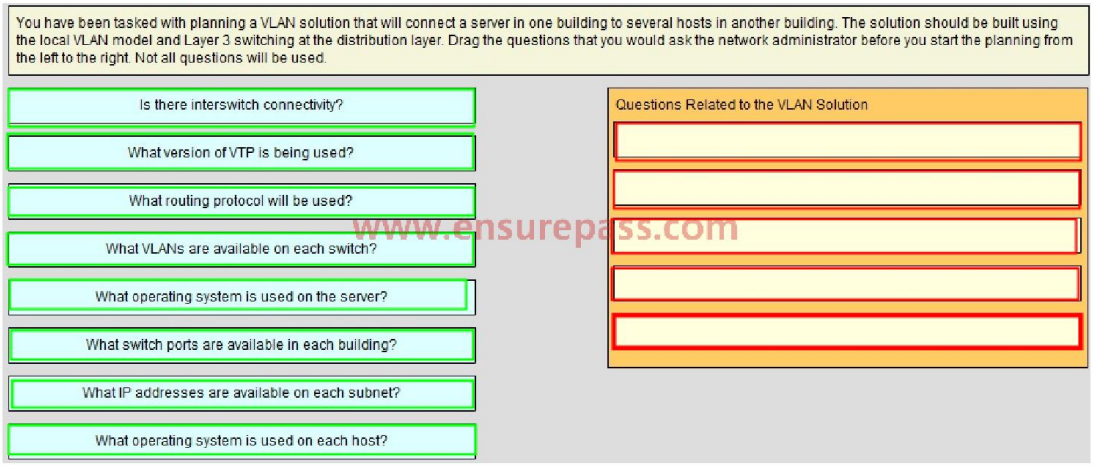
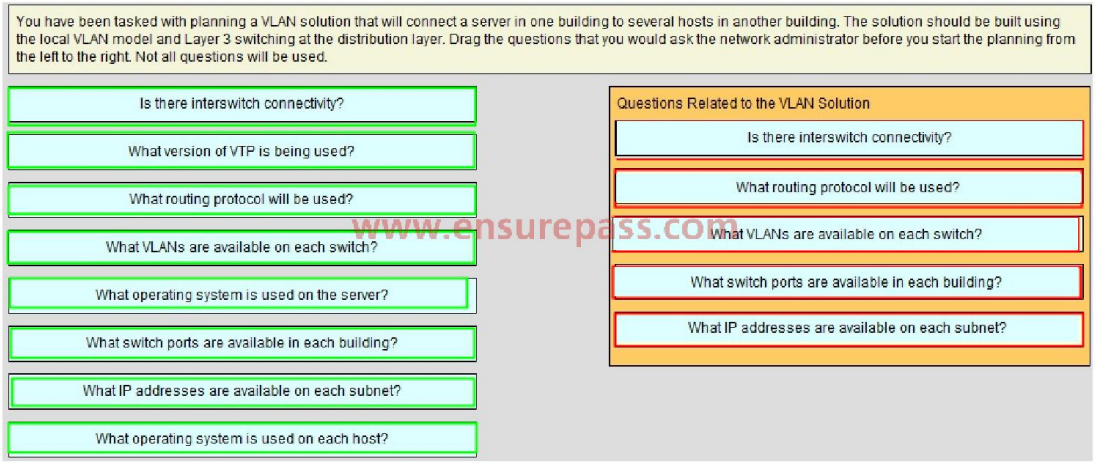
QUESTION 135


You have been tasked with planning a VLAN solution that will connect a server in one building to several hosts in another building. The solution should be built using the local VLAN model and Layer 3 switching at the distribution layer. Drag the questions that you would ask the network administrator before you start the planning from the left to the right. Not all questions will be used.
Is there interswitch connectivity?
What version of VTP is being used?
What routing protocol will be used?
What VLANs are available on each switch?
What operating system is used on the server?
What switch ports are available in each building?
What IP addresses are available on each subnet?
What operating system is used on each host?
Questions Related to the VLAN Solution
www.ensurepass.com

Correct Answer:


You have been tasked with planning a VLAN solution that will connect a server in one building to several hosts in another building. The solution should be built using the local VLAN model and Layer 3 switching at the distribution layer. Drag the questions that you would ask the network administrator before you start the planning from the left to the right. Not all questions will be used.
Is there interswitch connectivity?
What version of VTP is being used?
What routing protocol will be used?
What VLANs are available on each switch?
What operating system is used on the server?
What switch ports are available in each building?
What IP addresses are available on each subnet?
What operating system is used on each host?
Questions Related to the VLAN Solution
Is there interswitch connectivity?
What routing protocol will be used?
What VLANs are available on each switch?
What switch ports are available in each building?
What IP addresses are available on each subnet?
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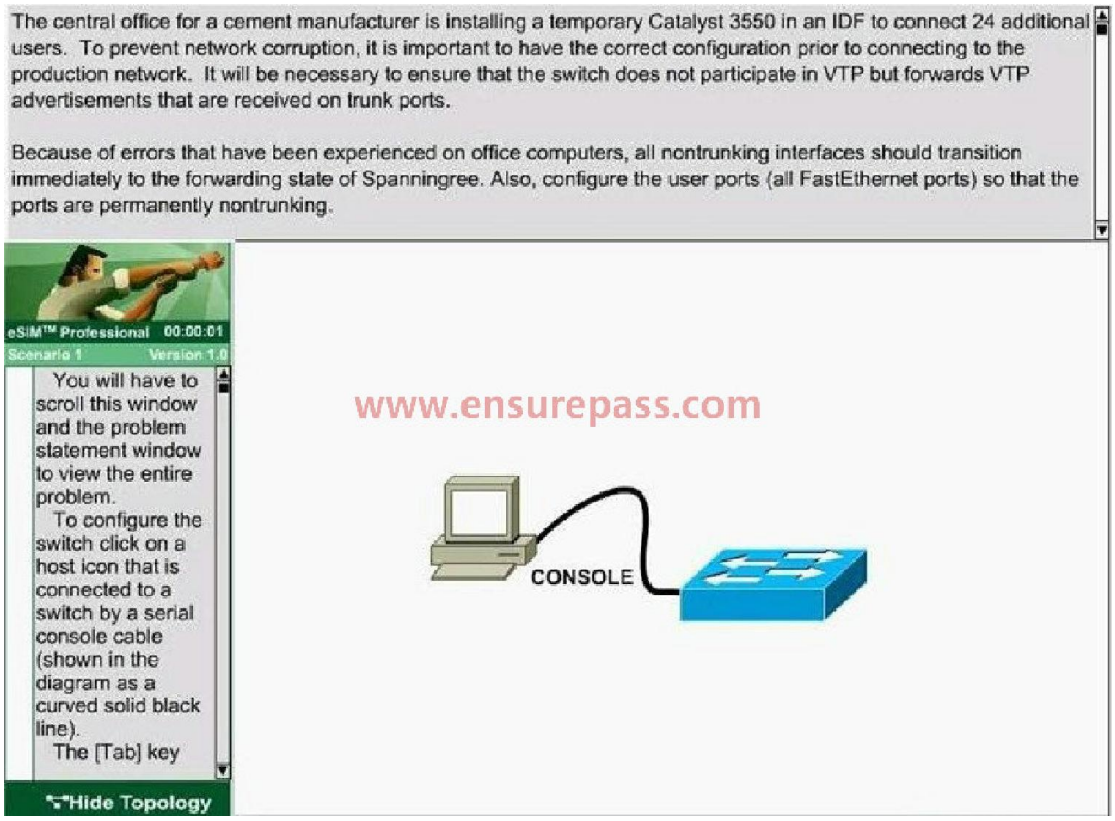
QUESTION 136

Refer to the Exhibit.


The central office for a cement manufacturer is installing a temporary Catalyst 3550 in an IDF to connect 24 additional users. To prevent network corruption, it is important to have the correct configuration prior to connecting to the production network. It will be necessary to ensure that the switch does not participate in VTP but forwards VTP advertisements that are received on trunk ports.
Because of errors that have been experienced on office computers, all nontrunking interfaces should transition immediately to the forwarding state of Spanningree. Also, configure the user ports (all FastEthernet ports) so that the ports are permanently nontrunking.
eSIM™ Professional 00:00:01
Scenario 1 Version 1.0
You will have to scroll this window and the problem statement window to view the entire problem.
To configure the switch click on a host icon that is connected to a switch by a serial console cable (shown in the diagram as a curved solid black line).
The [Tab] key
Hide Topology
www.ensurepass.com
CONSOLE

The information of the question

You will configure FastEthernet ports 0/12 through 0/24 for users who belong to VLAN 20. Also, all VLAN and VTP configurations are to be completed in global configuration mode as VLAN database mode is being deprecated by Cisco. You are required to accomplish the following tasks:

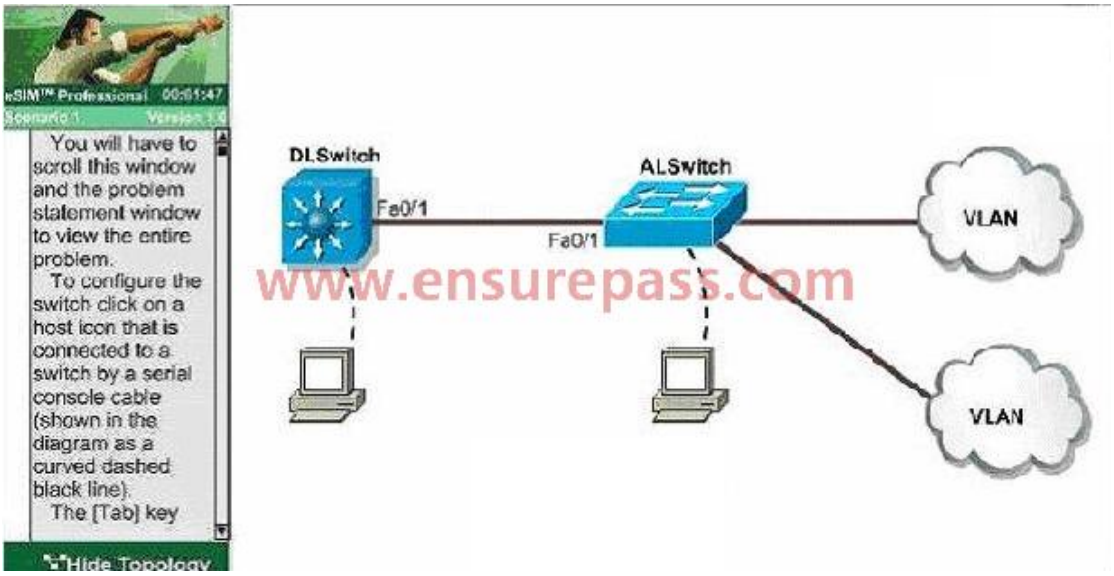
1. Ensure the switch does not participate in VTP but forwards VTP advertisements received on trunk ports.
2. Ensure all non-trunking interfaces (Fa0/1 to Fa0/24) transition immediately to the forwarding state of Spanning-Tree.
3. Ensure all FastEthernet interfaces are in a permanent non-trunking mode.
4. Place FastEthernet interfaces 0/12 through 0/24 in VLAN 20

Correct Answer:

switch# conf t
switch(config)# vtp mode transparent
switch(config)# interface range fa0/1 - 24
switch(config-if-range)# switchport mode access
switch(config-if-range)# spanning-tree portfast
switch(config)# interface range fa0/12 - 24
switch(config-if-range)# switchport access vlan 20
switch(config-if-range)# end
switch# copy running-config startup-config

QUESTION 137

The headquarter offices for a book retailer are enhancing their wiring closets with Layer3 switches. The new distribution-layer switch has been installed and a new access-layer switch cabled to it. Your task is to configure VTP to share VLAN information from the distribution-layer switch to the access-layer devices. Then, it is necessary to configure interVLAN routing on the distribution layer switch to route traffic between the different VLANs that are configured on the access-layer switches; however, it is not necessary for you to make the specific VLAN port assignments on the access-layer switches. Also, because VLAN database mode is being deprecated by Cisco, all VLAN and VTP configurations are to be completed in the global configuration mode. Please reference the following table for the VTP and VLAN information to be configured:


You will have to scroll this window and the problem statement window to view the entire problem.
To configure the switch click on a host icon that is connected to a switch by a serial console cable (shown in the diagram as a curved dashed black line).
The [Tab] key
Hide Topology
DLSwitch
Fa0/1
Fa0/1
ALSwitch
VLAN
VLAN
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Requirements:

VTP Domain name	cisco	
VLAN Ids	20	21
IP Addresses	172.16.71.1/24	172.16.132.1/24

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These are your specific tasks:

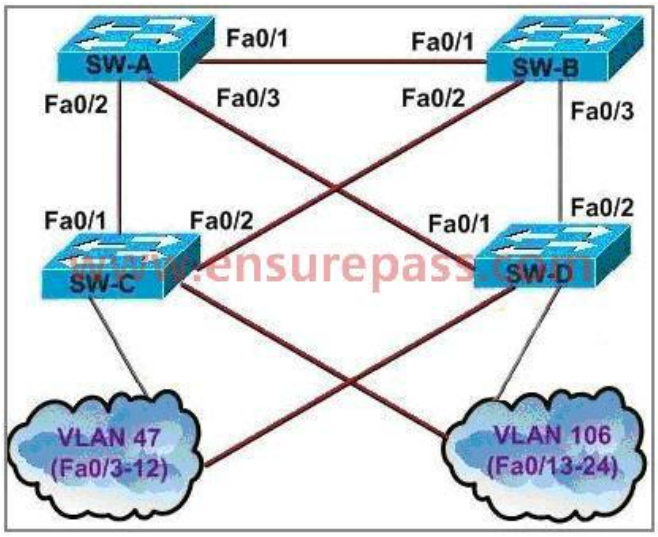
1. Configure the VTP information with the distribution layer switch as the VTP server
2. Configure the VTP information with the access layer switch as a VTP client
3. Configure VLANs on the distribution layer switch
4. Configure inter-VLAN routing on the distribution layer switch
5. Specific VLAN port assignments will be made as users are added to the access layer switches in the future.
6. All VLANs and VTP configurations are to completed in the global configuration. To configure the switch click on the host icon that is connected to the switch be way of a serial console cable.

Correct Answer:

DLSwitch# conf t
DLSwitch(config)# vtp mode server
DLSwitch(config)# vtp domain cisco
DLSwitch(config)# vlan 20
DLSwitch(config)# vlan 21
DLSwitch(config)# int vlan 20
DLSwitch(config-if)# ip address 172.16.236.1 255.255.255.0
DLSwitch(config-if)# no shutdown
DLSwitch(config-if)# exit
DLSwitch(config)# int vlan 21
DLSwitch(config-if)# ip address 172.16.170.1 255.255.255.0
DLSwitch(config-if)# no shutdown
DLSwitch(config-if)# exit
DLSwitch(config)# ip routing
DLSwitch(config)# end
DLSwitch# copy running-config startup-config

QUESTION 138

Refer to the Exhibit.



Online Incorporated is an internet game provide. The game service network had recently added an additional switch block with multiple VLANs configured. Unfortunately, system administrators neglected to document the spanning-tree topology during configuration. For baseline purpose, you will be required to identify the spanning-tree topology for the switch block. Using the output of "show spanning-tree" command on switch SW-C and the provided physical topology, answer the following questions:

Beware: VLAN number can change.

```
SW-C# show spanning-tree

VLAN0001
  Spanning tree enabled protocol rstp
  Root ID   Priority    32769
            Address     000d.65db.0102
            Cost        19
            Port        1 (FastEthernet0/1)
            Hello Time  2 sec  Max Age  20 sec  Forward Delay 15 sec

  Bridge ID  Priority   32769  (priority 32768 sys-id-ext 1)
             Address    000d.bd03.0380
             Hello Time 2 sec  Max  Age  20 sec  Foward  Delay  15 sec
             Aging Time 300

Interface      Role  Sts   Cost  Prio.Nbr  Type
---------------------------------------------------------------------
Fa0/1          Root  FWD 19      128.1     P2p
Fa0/2          Desg  FWD 19      128.2     P2p Peer (STP)


 VLAN0047
  Spanning tree enabled protocol rstp
  Root ID    Priority    24623
             Address     000f.34f5.0138
             Cost        19
             Port        2 (FastEthernet0/2)
             Hello Time  2 sec  Max Age  20 sec  Forward  Delay  15 sec

  Bridge ID  Priority    32815      (priority 32768 sys-id-ext 47 )
             Address     000d.bd03.0380
             Hello Time  2 sec  Max Age  20 sec  Foward  Delay  15 sec
             Aging Time  300

Interface      Role  Sts   Cost  Prio.Nbr  Type
---------------------------------------------------------------------
Fa0/1          Altn  BLK  19      128.1     P2p
Fa0/2          Root  FWD  19      128.2     P2p Peer (STP)


 VLAN0106
  Spanning tree enabled protocol rstp
  Root ID    Priority 24682
             Address     000d.65db.0102
             Cost        19
             Port        1 (FastEthernet0/1)
             Hello Time  2 sec  Max Age  20 sec  Forward  Delay  15 sec

  Bridge ID  Priority  32874      (priority 32768 sys-id-ext 106 )
             Address     000d.bd03.0380
             Hello Time  2 sec  Max Age  20 sec  Foward  Delay  15 sec
             Aging Time  300

Interface      Role  Sts   Cost  Prio.Nbr  Type
---------------------------------------------------------------------
Fa0/1          Root  FWD  19      128.1     P2p
Fa0/2          Desg  FWD  19      128.2     P2p Peer (STP)
```

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Question 1

Which spanning Tree Protocol has been implemented on SW-B?

A. STP/IEEE 802.1D
B. MSTP/IEEE 802.1s
C. PVST+
D. PVRST
E. None of the above

Correct Answer: C

Question 2
Which bridge ID belongs to SW-B?

A. 24623.000f.34f5.0138
B. 32768.000d.bd03.0380
C. 32768.000d.65db.0102
D. 32769.000d.65db.0102
E. 32874.000d.db03.0380
F. 32815.000d.db03.0380

Correct Answer: A

Question 3
Which port role has interface Fa0/2 of SW-A adopted for VLAN 47?

A. Root port
B. Nondesigned port
C. Designated port
D. Backup port
E. Alternate port

Correct Answer: C

Question 4
Which port state is interface Fa0/2 of SW-B in for VLANs 1 and 106?

A. Listening
B. Learning
C. Disabled
D. Blocking
E. Forwarding
F. Discarding

Correct Answer: D

Question 5

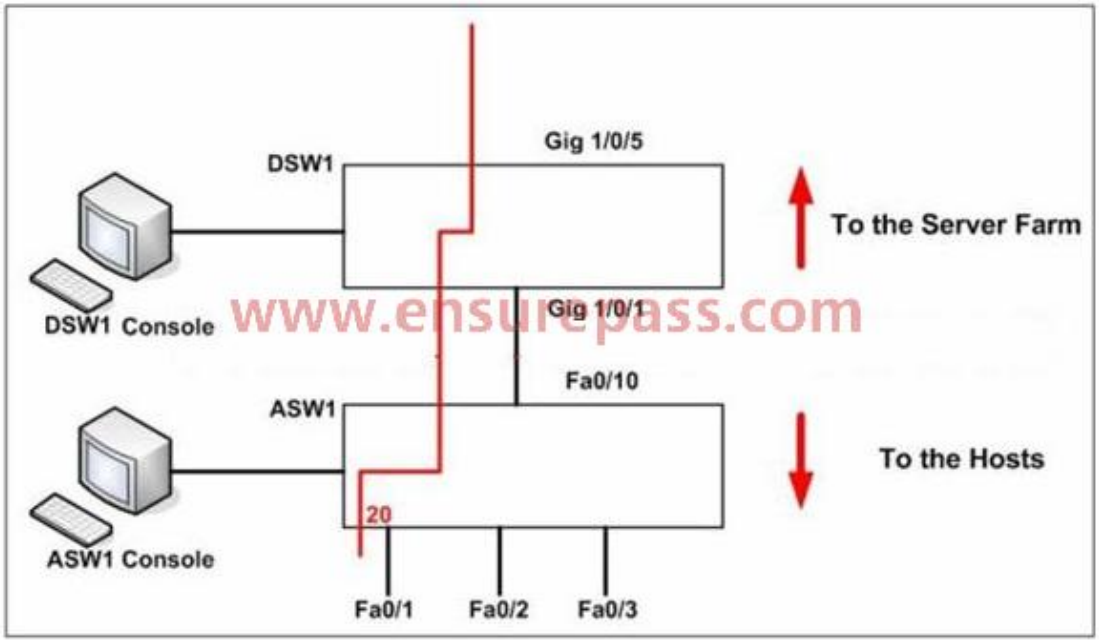
Which bridge ID belongs to SW-A?

A. 24623.000f.34f5.0138
B. 32768.000d.bd03.0380
C. 32768.000d.65db.0102
D. 32769.000d.65db.0102
E. 32874.000d.db03.0380
F. 32815.000d.db03.0380

Correct Answer: D

QUESTION 139

Refer to the Exhibit.



Acme is a small shipping company that has an existing enterprise network comprised of 2 switches DSW1 and ASW2. The topology diagram indicates their layer 2 mapping. VLAN 40 is a new VLAN that will be used to provide the shipping personnel access to the server. For security reasons, it is necessary to restrict access to VLAN 20 in the following manner:

- Users connecting to ASW1's port must be authenticate before they are given access to the network.

- Authentication is to be done via a Radius server:
- Radius server host: 172.120.39.46
- Radius key: rad123
- Authentication should be implemented as close to the host device possible.
- Devices on VLAN 20 are restricted to in the address range of 172.120.40.0/24.
- Packets from devices in the address range of 172.120.40.0/24 should be passed on VLAN 20.
- Packets from devices in any other address range should be dropped on VLAN 20.
- Filtering should be implemented as close to the server farm as possible.

The Radius server and application servers will be installed at a future date. You have been tasked with implementing the above access control as a pre-condition to installing the servers.
You must use the available IOS switch features.

Correct Answer:
Step1: Console to ASW1 from PC console 1
ASW1(config)# aaa new-model
ASW1(config)# radius-server host 172.120.39.46 key rad123
ASW1(config)# aaa authentication dot1x default group radius
ASW1(config)# dot1x system-auth-control
ASW1(config)# int fastEthernet 0/1
ASW1(config-if)# switchport mode access
ASW1(config-if)# dot1x port-control auto
ASW1(config-if)# end

ASW1# copy running-config startup-config

Step2: Console to DSW1 from PC console 2
DSW1(config)# ip access-list standard 10
DSW1(config-ext-nacl)# permit 172.120.40.0 0.0.0.255
DSW1(config-ext-nacl)# exit
DSW1(config)# vlan access-map PASS 10
DSW1(config-access-map)# match ip address 10
DSW1(config-access-map)# action forward
DSW1(config-access-map)# exit
DSW1(config)# vlan access-map PASS 20
DSW1(config-access-map)# action drop
DSW1(config-access-map)# exit
DSW1(config)# vlan filter PASS vlan-list 20
DSW1(config)# exit

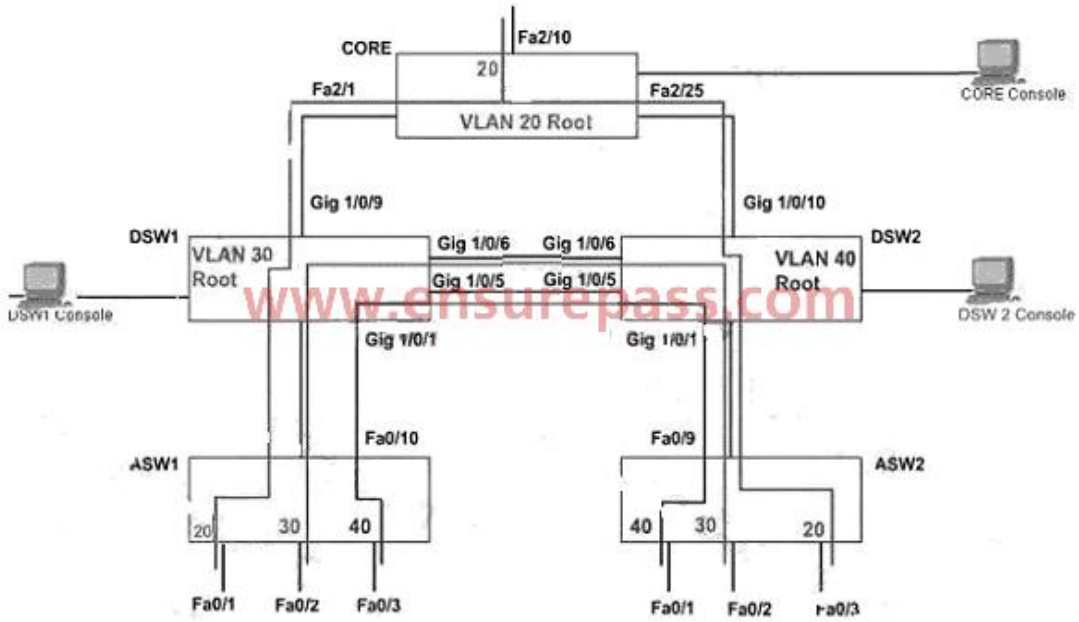
DSW1# copy running-config startup-config

QUESTION 140
Acme is small export company that has an existing enterprise network comprised of 5 switches;

CORE, DSW1, DSW2, ASW1 and ASW2. The topology diagram indicates their desired pre-VLAN spanning tree mapping. Previous configuration attempts have resulted in the following issues:

- CORE should be the root bridge for VLAN 20; however, DSW1 is currently the root bridge for VLAN 20.
- Traffic for VLAN 30 should be forwarding over the gig 1/0/6 trunk port between DSW1 and DSW2. However VLAN 30 is currently using gig 1/0/5.
- Traffic for VLAN 40 should be forwarding over the gig 1/0/5 trunk port between DSW1 and DSW2. However VLAN 40 is currently using gig 1/0/6.

You have been tasked with isolating the cause the these issuer and implementing the appropriate solutions. You task is complicated by the fact that you only have full access to DSW1, with isolating the cause of these issues and implementing the appropriate solutions, Your task is complicated by the fact that you only have full access to DSW1, with the enable secret password cisco. Only limited show command access is provided on CORE, and DSW2 using the enable 2 level with a password of acme. No configuration changes will be possible on these routers. No access is provided to ASW1 or ASW2.



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```
hostname DSW1
!
enable secret 5 $1$wN16$j5RnayatKfxaKxhX30TVo0
!
no aaa new-model
switch 1 provision ws-c3750g-24t
ip subnet-zero
!
!
!
no file verify auto
!
spanning-tree mode pvst
spanning-tree extend systen-id
spanning-tree "vlan 20 priority 28672
spanning-tree vlan 30 priority 24576
!
vlan internal allocation policy ascending
!
!
interface GigabitEthernet1/0/1
description trunk line to ASW1
switchport trunk encapsulation dotlq
switchport mode trunk
switchport nonegotiate
speed 100
duplex full
!
interface GigabitEthernet1/0/2
shutdown
!
interface GigabitEthernet1/0/3
shutdown
!
interface GigabitEthernet1/0/4
shutdown
!
```

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```
.
interface GigabitEthernet1/0/5
description trunk line to DSW 2
switchport trunk encapsulation dotlq
switcbport mode trunk
switchport nonegotiate
speed 100
duplex full
!
interface GigabitEthernet1/0/6
description trunk line to DSW 2
switchport trunk encapsulation dotlq

switchport mode trunk
switchport nonegotiate
speed 100
duplex full
!
interface GigabitEthemet1/0/7
shutdown
!
interface GigabitEthemet1/0/8
shutdown
!
Interface GigabitEthernetl/0/9
description trunk line to CORE
switchport trunk encapsulation dotlq
switchport mode trunk
!
end
```

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DSW1# Show sp
DSW1# Show spanning-tree
VLAN0001
Spanning tree enabled protocol ieee

Root ID Priority 32769
Address 0016. 4658. f300
Cost 19
Port 9 (GigabitEthernet/0/9)
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Bridge ID Priority 32769 (priority 32768 sys-id-ext 1)
Address 0016. 46fa. 9b00
Hello Time 2 sec Max Age 20 sec Forward Delay l5 sec
Aging Time 300

Interface	Role	Sts	Cost	Prio...Nbr	Type
Gil/0/1	Desg	FWD	19	128.1	P2p
Gil/0/5	Altn	BLK	19	128.5	P2p
Gil/0/6	Altn	BLK	19	128.6	P2p
Gil/0/9	Root	FWD	19	128.9	P2p

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VLAN0020
Spanning three enabled protocol ieee

Root ID Priority 28692
Address 0016. 46fa. 9b00
This bridge is the root

Bridge ID Priority 28692 (priority 28672 sys-id-ext 20)
Address 0016. 46fa. 9b00
Hello Time 2 sec Max Age 20 sec Forward Delay l5 sec
Aging Time 300

Interface	Role	Sts	Cost	Prio..Nbr	Type
Gil/0/5	Altn	BLK	19	128.5	P2p
Gil/0/6	Altn	BLK	19	128.6	P2p
Gil/0/9	Root	FWD	19	128.9	P2p

VLAN0020
Spanning three enabled protocol ieee

Root ID Priority 28692
Address 0016. 46fa. 9b00
This bridge is the root

Bridge ID Priority 28692 (priority 28672 sys-id-ext 20)
Address 0016. 46fa. 9b00
Hello Time 2 sec Max Age 20 sec Forward Delay l5 sec
Aging Time 300

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Interface	Role	Sts	Cost	Prio..Nbr	Type
Gil/0/1	Desg	FWD	19	128.1	P2p
Gil/0/5	Desg	BLK	19	128.5	P2p
Gil/0/6	Desg	BLK	19	128.6	P2p
Gil/0/9	Desg	FWD	19	128.9	P2p

VLAN0030
Spanning three enabled protocol ieee

Root ID Priority 24606
This bridge is the root

Bridge ID Priority 28692 (priority 28672 sys-id-ext 20)
Address 0016. 46fa. 9b00
Hello Time 2 sec Max Age 20 sec Forward Delay l5 sec
Aging Time 300

Interface	Role	Sts	Cost	Prio..Nbr	Type
Gil/0/1	Desg	FWD	19	128.1	P2p
Gil/0/5	Desg	BLK	19	128.5	P2p
Gil/0/6	Desg	BLK	19	128.6	P2p
Gil/0/9	Desg	FWD	19	128.9	P2p

VLAN0040
Spanning three enabled protocol ieee

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Root ID Priority 24616
Address 0016. 46fa. 6a00
Cost 19
Port 9 (GigabitEthernet/0/9)
Hello Time 2 sec Max Age 20 sec Forward Delay l5 sec

Bridge ID Priority 32808 (priority 32768 sys-id-ext 40)
Address 0016. 46fa. 9b00
Hello Time 2 sec Max Age 20 sec Forward Delay l5 sec
Aging Time 300

Interface	Role	Sts	Cost	Prio..Nbr	Type
Gil/0/1	Desg	FWD	19	128.1	P2p
Gil/0/5	Altn	BLK	19	128.5	P2p
Gil/0/6	Root	FWD	19	128.6	P2p
Gil/0/9	Altn	BLK	19	128.9	P2p

Correct answer:

DSW1# conf t

DSW1(config)# spanning-tree vlan 20 priority 61440

DSW1(config)# int g1/0/5

DSW1(config-if)# spanning-tree vlan 40 cost 1

DSW1(config-if)# no shut

DSW1(config-if)# exit

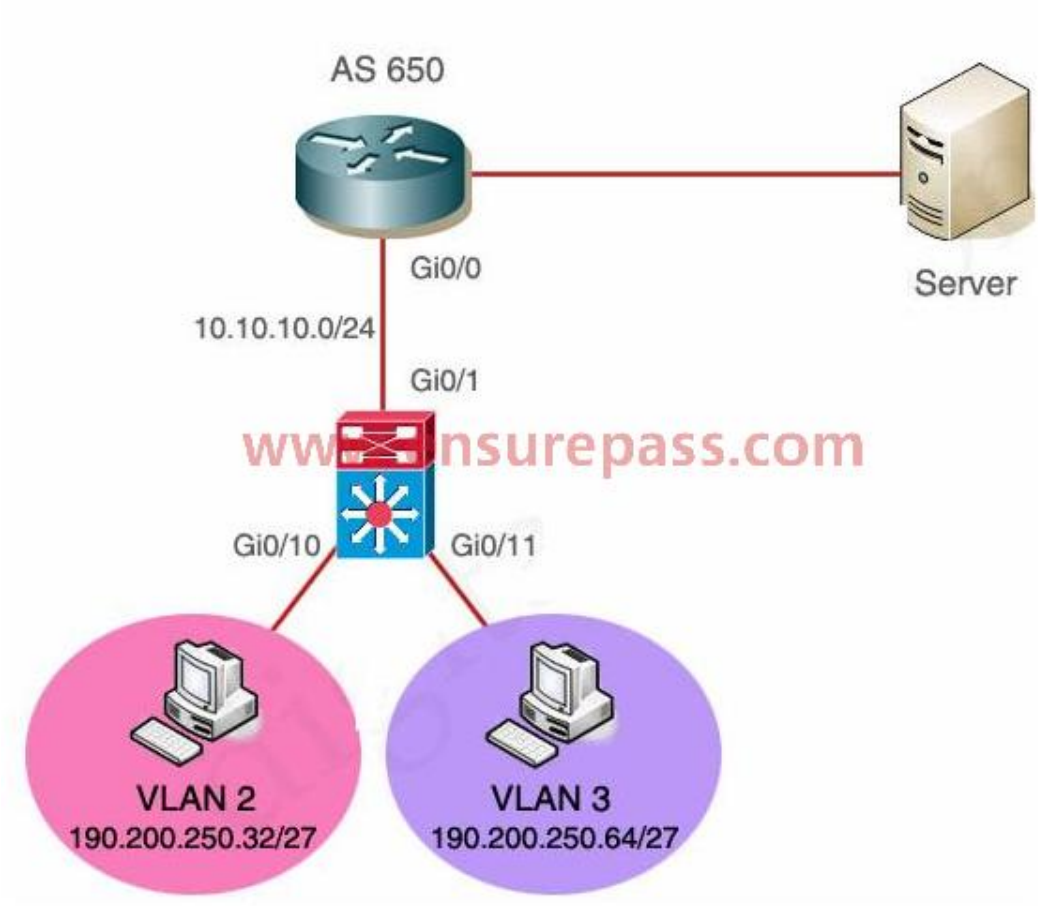
DSW1(config)# int g1/0/6

DSW1(config-if)# spanning-tree vlan 30 port-priority 64
DSW1(config-if)# no shut
DSW1(config-if)# end

DSW1# copy running-config startup-config

Verification:
DSW1# show spanning-tree vlan 20
DSW1# show spanning-tree vlan 40
DSW2# show spanning-tree vlan 30

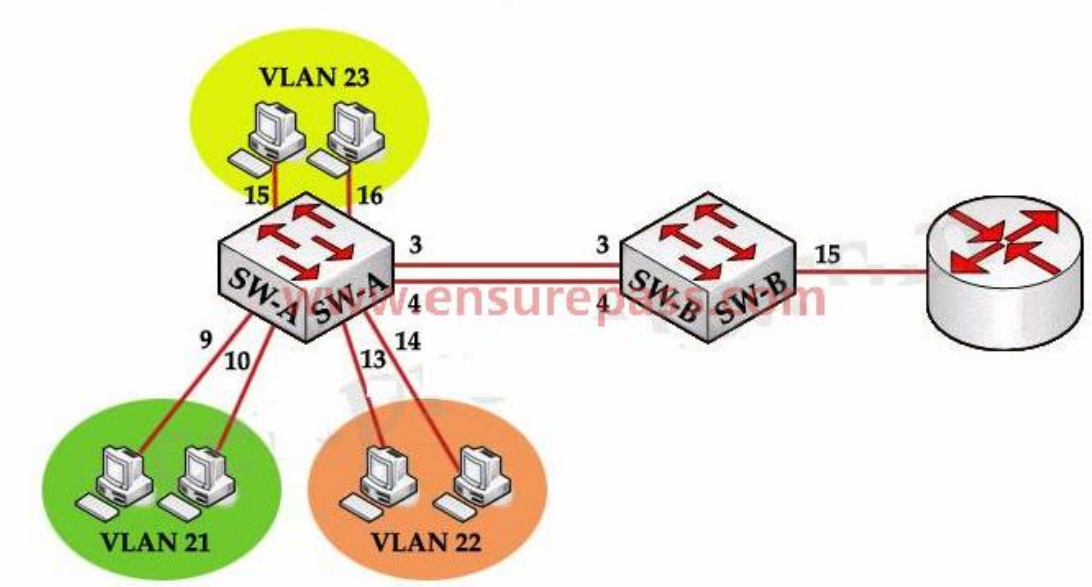
QUESTION 141
Configure the Multilayer Switch so that PCs from VLAN 2 and VLAN 3 can communicate with the Server.



Correct answer:
mls>enable mls# conf t
mls(config)# int gi 0/1
mls(config-if)# no switchport
mls(config-if)# ip address 10.10.10.2 255.255.255.0

```
mls(config-if)# no shutdown
mls(config-if)# exit

mls(config)# int vlan 2
mls(config-if)# ip address 190.200.250.33 255.255.255.224
mls(config-if)# no shutdown

mls(config-if)# int vlan 3
mls(config-if)# ip address 190.200.250.65 255.255.255.224
mls(config-if)# no shutdown
mls(config-if)#exit

mls(config)# int gi 0/10
mls(config-if)# switchport mode access
mls(config-if)# switchport access vlan 2
mls(config-if)# no shutdown
mls(config-if)# exit

mls(config)# int gi 0/11
mls(config-if)# switchport mode access
mls(config-if)# switchport access vlan 3
mls(config-if)# no shutdown
mls(config-if)# exit

mls(config)# ip routing (Notice: MLS will not work without this command)

mls(config)# router eigrp 650
mls(config-router)# network 10.10.10.0 0.0.0.255
mls(config-router)# network 190.200.250.32 0.0.0.31
mls(config-router)# network 190.200.250.64 0.0.0.31
mls(config-router)# no auto-summary
mls(config-router)# end

mls# copy running-configuration startup-configuration
```

QUESTION 142



Each of these vlans has one host each on its ports
SVI on vlan 1 - ip 192.168.1.11

Switch B
Ports 3, 4 connected to ports 3 and 4 on Switch A Port 15 connected to Port on Router.
Tasks to do:

1. Use non proprietary mode of aggregation with Switch B being the initiator
   Use LACP with B being in Active mode

2. Use non proprietary trunking and no negotiation
   Use switchport mode trunk and switchport trunk encapsulation dot1q

3. Restrict only to the VLANs needed
   Use either VTP pruning or allowed VLAN list. The preferred method is using allowed VLAN list

4. SVI on VLAN 1 with some ip and subnet given

5. Configure switch A so that nodes other side of Router C are accessible
   On switch A the default gateway has to be configured.

6. Make switch B the root

Correct answer:
SW-A: verify with show run if you need to create vlans 21-23 and verify trunk's native vlan (remove if not 99)
SW-A# int vlan 1

SW-A(config-if)# ip address 192.168.1.11 255.255.255.0
SW-A(config-if)# no shut
SW-A(config-if)# exit

SW-A(config)# int range fa 0/9 - 10
SW-A(config-if)# switchport mode access
SW-A(config-if)# switchport access vlan 21
SW-A(config-if)# spanning-tree portfast
SW-A(config-if)# no shut
SW-A(config-if)# exit

SW-A(config)# int range fa 0/13 - 14
SW-A(config-if)# switchport mode access
SW-A(config-if)# switchport access vlan 22
SW-A(config-if)# spanning-tree portfast
SW-A(config-if)# no shut
SW-A(config-if)# exit

SW-A(config)# int range fa 0/15 - 16
SW-A(config-if)# switchport mode access
SW-A(config-if)# switchport access vlan 23
SW-A(config-if)# spanning-tree portfast
SW-A(config-if)# no shut
SW-A(config-if)# exit

SW-A(config)# int range fa 0/3 - 4
SW-A(config-if)# channel-protocol lacp
SW-A(config-if)# channel group 1 mode passive
SW-A(config-if)# no shut
SW-A(config-if)# exit

SW-A(config)# int port-channel 1
SW-A(config-if)# switchport trunk encapsulation dot1q
SW-A(config-if)# switchport mode trunk
SW-A(config-if)# switchport trunk native vlan 99
SW-A(config-if)# switchport trunk allowed vlans 1,21-23
SW-A(config-if)# no shut
SW-A(config-if)# end

SW-A# copy running-configuration startup-configuration

SW-B
SW-B# conf t
Create vlan:

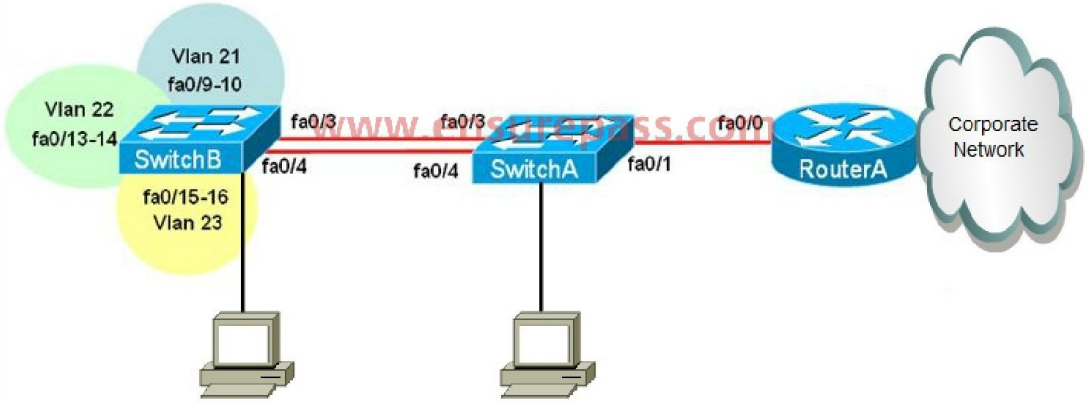
SW-B(config)# vlan 21
SW-B(config-vlan)# vlan 22
SW-B(config-vlan)# vlan 23
SW-B(config-vlan)# exit

SW-B(config)# spanning-tree vlan 1,21-23,99 root primary

SW-B(config)# int range fa 0/3 - 4
SW-B(config-if)# channel-protocol lacp
SW-B(config-if)# channel-group 1 mode active
SW-B(config-if)# no shut
SW-B(config-if)# exit

SW-B(config)# int port-channel 1
SW-B(config-if)# switchport trunk encapsulation dot1q
SW-B(config-if)# switchport mode trunk
SW-B(config-if)# switchport trunk native vlan 99
SW-B(config-if)# switchport trunk allowed vlan 1,21-23
SW-B(config-if)# no shut
SW-B(config-if)# end
SW-B# copy running-configuration startup-configuration

QUESTION 143
Scenario:
You work for SWITCH.com. They have just added a new switch (SwitchB) to the existing network as shown in the topology diagram.



RouterA is currently configured correctly and is providing the routing function for devices on

SwitchA and SwitchB. SwitchA is currently configured correctly, but will need to be modified to support the addition of SwitchB. SwitchB has a minimal configuration. You have been tasked with competing the configuration of SwitchA and SwitchB. SwitchA and SwitchB use Cisco as the enable password.

Configuration Requirements for SwitchA
The VTP and STP configuration modes on SwitchA should not be modified.

- SwitchA needs to be the root switch for vlans 11, 12, 13, 21, 22 and 23. All other vlans should be left are their default values.

Configuration Requirements for SwitchB

- Vlan 21, Name: Marketing, will support two servers attached to fa0/9 and fa0/10
- Vlan 22, Name: Sales, will support two servers attached to fa0/13 and fa0/14
- Vlan 23, Name: Engineering, will support two servers attached to fa0/15 and fa0/16
- Access ports that connect to server should transition immediately transition to forwarding state upon detecting the connection of a device.
- SwitchB VTP mode needs to be the same as SwitchA.
- SwitchB must operate in the same spanning tree mode as SwitchA
- No routing is to be configured on SwitchB
- Only the SVI vlan 1 is to be configured and it is to use address 192.168.1.11/24

Inter-switch Connectivity Configuration Requirements:

- For operational and security reasons trunking should be unconditional and Vlans 1, 21, 22 and 23 should tagged when traversing the trunk link.
- The two trunks between SwitchA and SwitchB need to be configured in a mode that allows for the maximum use of their bandwidth for all vlans. This mode should be done with a non-proprietary protocol, with SwitchA controlling activation.
- Propagation of unnecessary broadcasts should be limited using manual pruning on this trunk link.

Correct answer:
SwitchB
SwitchB# conf t

Create vlan:
SwitchB(config)# vlan 21
SwitchB(config-vlan)# name Marketing
SwitchB(config-vlan)# vlan 22
SwitchB(config-vlan)# name Sales
SwitchB(config-vlan)# vlan 23
SwitchB(config-vlan)# name Engineering
SwitchB(config-vlan)# exit
SwitchB(config)# spanning-tree vlan 1,11-13,21-23,99 root primary

```
SwitchB(config)# int range fa 0/3 - 4
SwitchB(config-if)# channel-protocol lacp
SwitchB(config-if)# channel-group 1 mode active
SwitchB(config-if)# no shut
SwitchB(config-if)# exit

SwitchB(config)# int port-channel 1
SwitchB(config-if)# switchport trunk encapsulation dot1q
SwitchB(config-if)# switchport mode trunk
SwitchB(config-if)# switchport trunk native vlan 99
SwitchB(config-if)# switchport trunk allowed vlan 1,21-23
SwitchB(config-if)# no shut
SwitchB(config-if)# end

SwitchB# copy running-configuration startup-configuration

SwitchB# conf t
SwitchB(config-if)# int vlan 1
SwitchB(config-if)# ip address 192.168.1.11 255.255.255.0
SwitchB(config-if)# no shut
SwitchB(config-if)# exit

SwitchB(config)# vtp mode transparent
SwitchB(config)# spanning-tree mode rapid-pvst
SwitchB(config)# int range fa 0/9 - 10
SwitchB(config-if)# switchport mode access
SwitchB(config-if)# switchport access vlan 21
SwitchB(config-if)# spanning-tree portfast
SwitchB(config-if)# no shut
SwitchB(config-if)# exit

SwitchB(config)# int range fa 0/13 - 14
SwitchB(config-if)# switchport mode access
SwitchB(config-if)# switchport access vlan 22

SwitchB(config-if)# spanning-tree portfast
SwitchB(config-if)# no shut
SwitchB(config-if)# exit

SwitchB(config)# int range fa 0/15 - 16
SwitchB(config-if)# switchport mode access
SwitchB(config-if)# switchport access vlan 23
SwitchB(config-if)# spanning-tree portfast
```

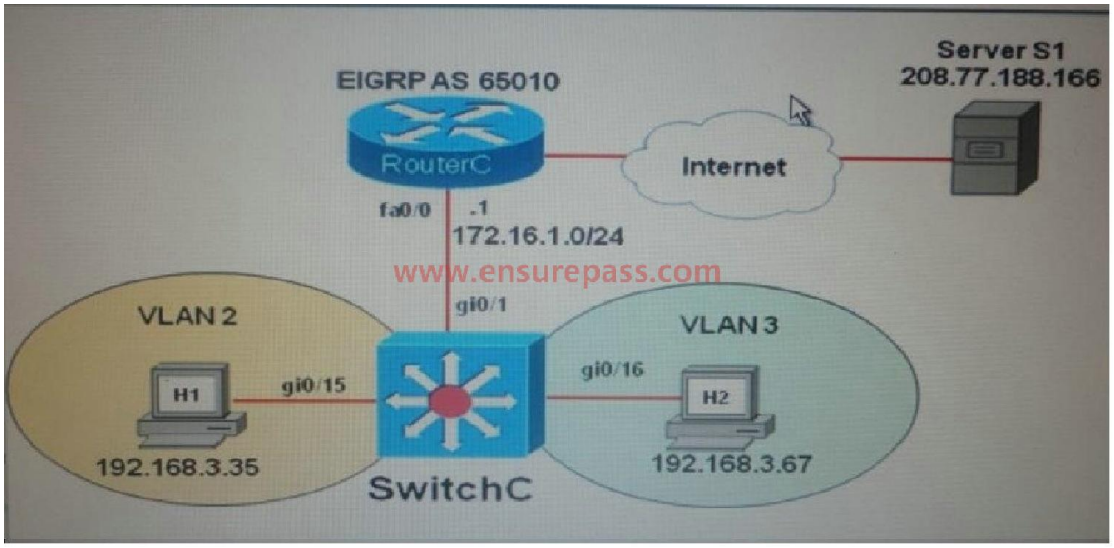
SwitchB(config-if)# no shut
SwitchB(config-if)# exit

SwitchA(config)# int range fa 0/3 - 4
SwitchA(config-if)# channel-protocol lacp
SwitchA(config-if)# channel group 1 mode passive
SwitchA(config-if)# no shut
SwitchA(config-if)# exit

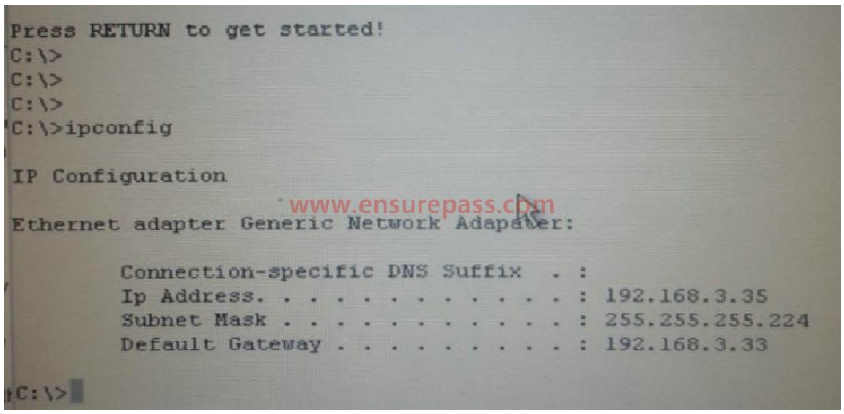
SwitchA(config)# int port-channel 1
SwitchA(config-if)# switchport trunk encapsulation dot1q
SwitchA(config-if)# switchport mode trunk
SwitchA(config-if)# switchport trunk native vlan 99
SwitchA(config-if)# switchport trunk allowed vlans 1,21-23
SwitchA(config-if)# no shut
SwitchA(config-if)# end

SwitchA# copy running-configuration startup-configuration

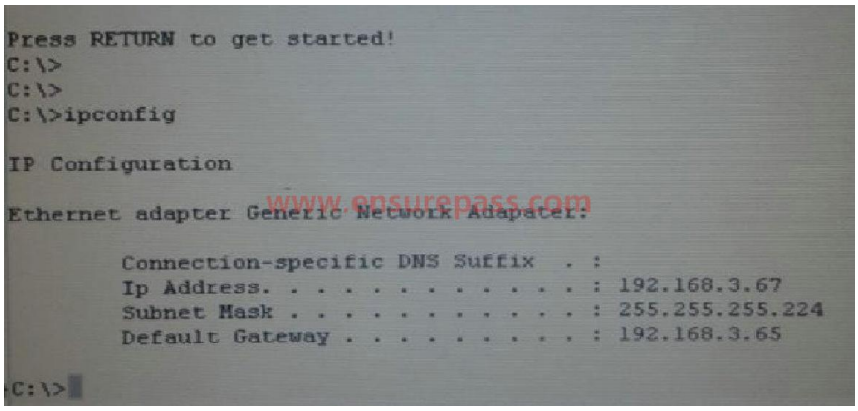
QUESTION 144
You have been tasked with configuring multilayer SwitchC, which has a partial configuration and has been attached to RouterC as shown in the topology diagram.



HOST 1:


Press RETURN to get started!
C:\>
C:\>
C:\>
C:\>ipconfig
IP Configuration
Ethernet adapter Generic Network Adapter:
Connection-specific DNS Suffix . :
Ip Address. . . . . : 192.168.3.35
Subnet Mask . . . . . : 255.255.255.224
Default Gateway . . . . . : 192.168.3.33
C:\>

HOST 2:


Press RETURN to get started!
C:\>
C:\>
C:\>ipconfig
IP Configuration
Ethernet adapter Generic Network Adapter:
Connection-specific DNS Suffix . :
Ip Address. . . . . : 192.168.3.67
Subnet Mask . . . . . : 255.255.255.224
Default Gateway . . . . . : 192.168.3.65
C:\>

You need to configure SwitchC so that Hosts H1 and H2 can successful ping the server S1. Also SwitchC needs to be able to ping server S1.

Due to administrative restrictions and requirements you should not add/delete vlans, changes VLAN port assignments or create trunk links Company policies forbid the use of static or default routing All routes must be learned via EIGRP 65010 routing protocol.

You do not have access to RouteC, RouterC is correctly configured. No trunking has been configured on RouterC.

Routed interfaces should use the lowest host on a subnet when possible. The following subnets are available to implement this solution:

- 172.16.1.0/24
- 192.168.3.32/27
- 192.168.3.64/27

Hosts H1 and H2 are configured with the correct IP address and default gateway. SwitchC uses Cisco as the enable password.

Routing must only be enabled for the specific subnets shown in the diagram.

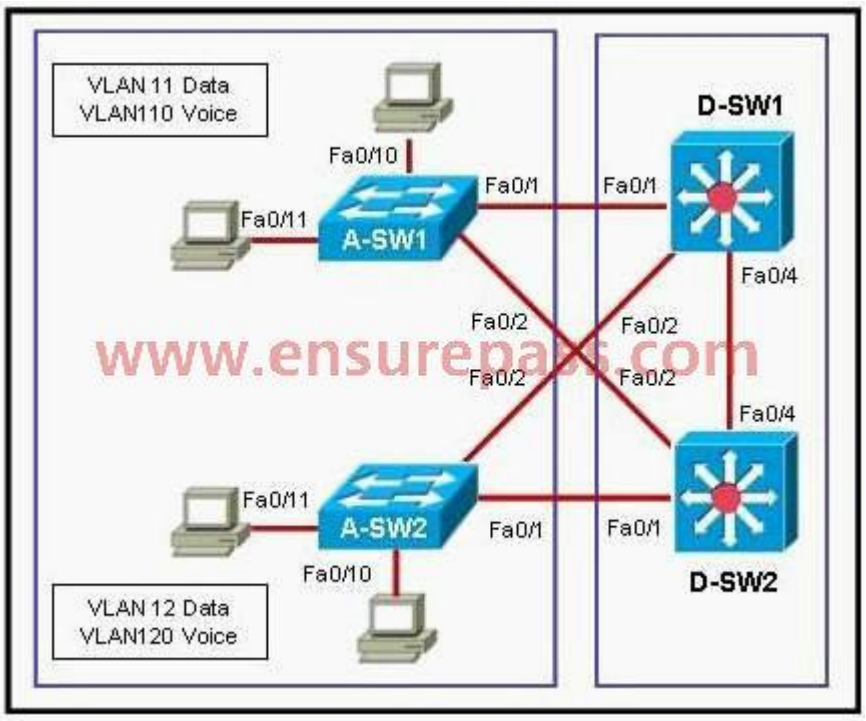
Correct Answer:

On switch C:

```
SwitchC> enable
SwitchC# conf t

SwitchC(config)# int gi 0/1
SwitchC(config-if)# no switchport
SwitchC(config-if)# ip address 172.16.1.1 255.255.255.0
SwitchC(config-if)# no shutdown
SwitchC(config-if)# exit

SwitchC(config)# int vlan 2
SwitchC(config-if)# ip address 192.168.3.33 255.255.255.224
SwitchC(config-if)# no shutdown
SwitchC(config-if)# exit

SwitchC(config-if)# int vlan 3
SwitchC(config-if)# ip address 192.168.3.65 255.255.255.224
SwitchC(config-if)# no shutdown
SwitchC(config-if)# exit

SwitchC(config)# ip routing
SwitchC(config-router)# router eigrp 65010
SwitchC(config-router)# network 172.16.1.0 0.0.0.255
SwitchC(config-router)# network 192.168.3.32 0.0.0.31
SwitchC(config-router)# network 192.168.3.64 0.0.0.31
SwitchC(config-router)# no auto-summary
SwitchC(config-router)# end
SwitchC# copy running-config startup-config
```

QUESTION 145

Refer to the exhibit. On the basis of the information provided in the exhibit, which two sets of procedures are best practices for Layer 2 and 3 failover alignment? (Choose two.)



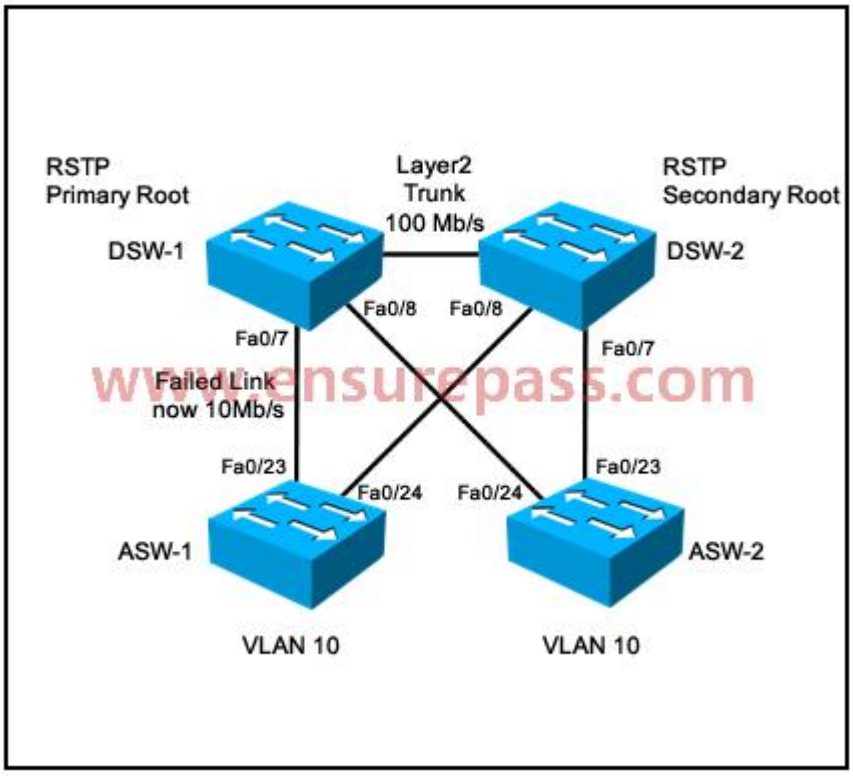
A. Configure the D-SW1 switch as the active HSRP router and the STP root for all VLANs. Configure the D-SW2 switch as the standby HSRP router and backup STP root for all VLANs.
B. Configure the D-SW1 switch as the standby HSRP router and the STP root for VLANs 11 and 110. Configure the D-SW2 switch as the standby HSRP router and the STP root for VLANs 12 and 120.
C. Configure the D-SW1 switch as the active HSRP router and the STP root for VLANs 11 and 110. Configure the D-SW2 switch as the active HSRP router and the STP root for VLANs 12 and 120.
D. Configure the D-SW2 switch as the active HSRP router and the STP root for all VLANs. Configure the D-SW1 switch as the standby HSRP router and backup STP root for all VLANs.
E. Configure the D-SW1 switch as the active HSRP router and the backup STP root for VLANs 11 and 110. Configure the D-SW2 switch as the active HSRP router and the backup STP root for VLANs 12 and 120.
F. Configure the D-SW1 switch as the standby HSRP router and the backup STP root for VLANs 12 and 120. Configure the D-SW2 switch as the standby HSRP router and the backup STP root for VLANs 11 and 110.

Correct Answer: CF

QUESTION 146

Refer to the exhibit. All links in this network are layer 2, fast Ethernet 100Mb/s and operating as

trunks. After a failure, the link between ASW-1 and DSW-1 has incorrectly come back up at 10Mb/s although it is connected. Which one of the following will occur as a result of this failure?



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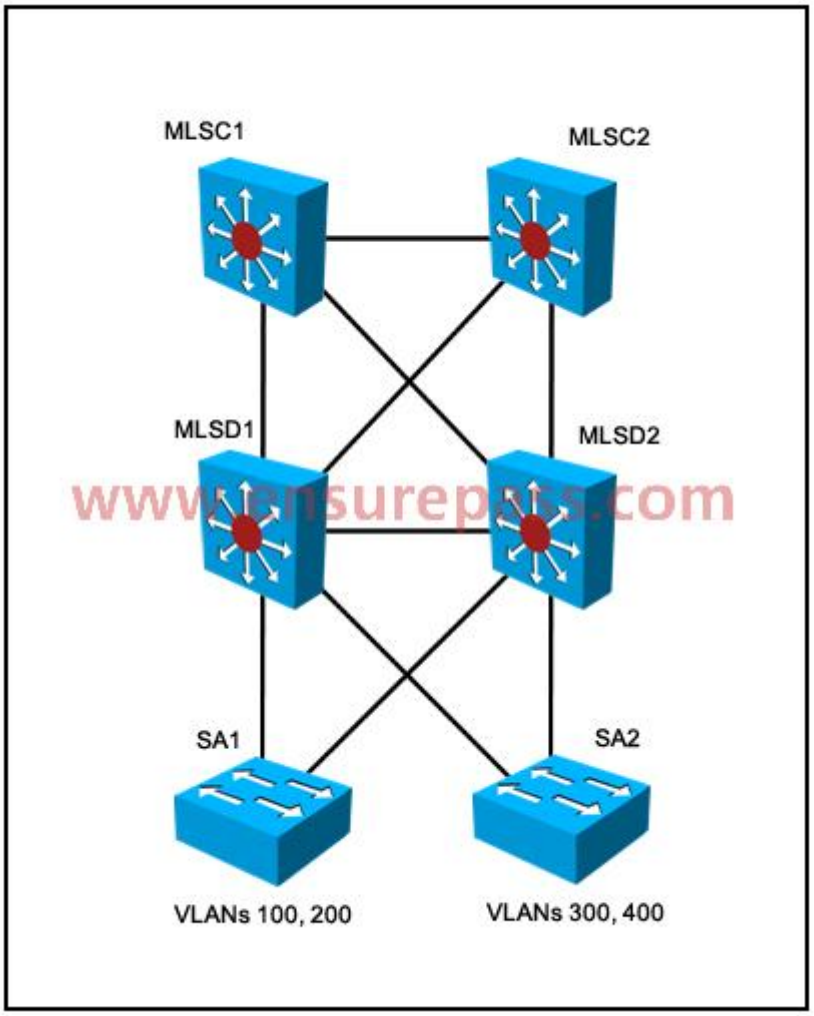
A. There will be no change to the forwarding path of traffic from ASW-1
B. ASW-1 will block Fa0/24 in order to maintain the shortest path to the root bridge DSW-1
C. ASW-1 will block Fa0/23 in order to maintain the shortest path to the root bridge DSW-1
D. ASW-1 will elect DSW-2 as the root primary since it is closer than DSW-1

Correct Answer: C

QUESTION 147

Refer to the exhibit. For the configuration shown, which is the recommended method of

providing inter VLAN routing?



A. determine which switch is the root bridge then connect a router on a stick to it
B. configure SVIs on the core switches
C. configure SVIs on the distribution switches
D. configure SVIs on the access layer switches

Correct Answer: C

QUESTION 148

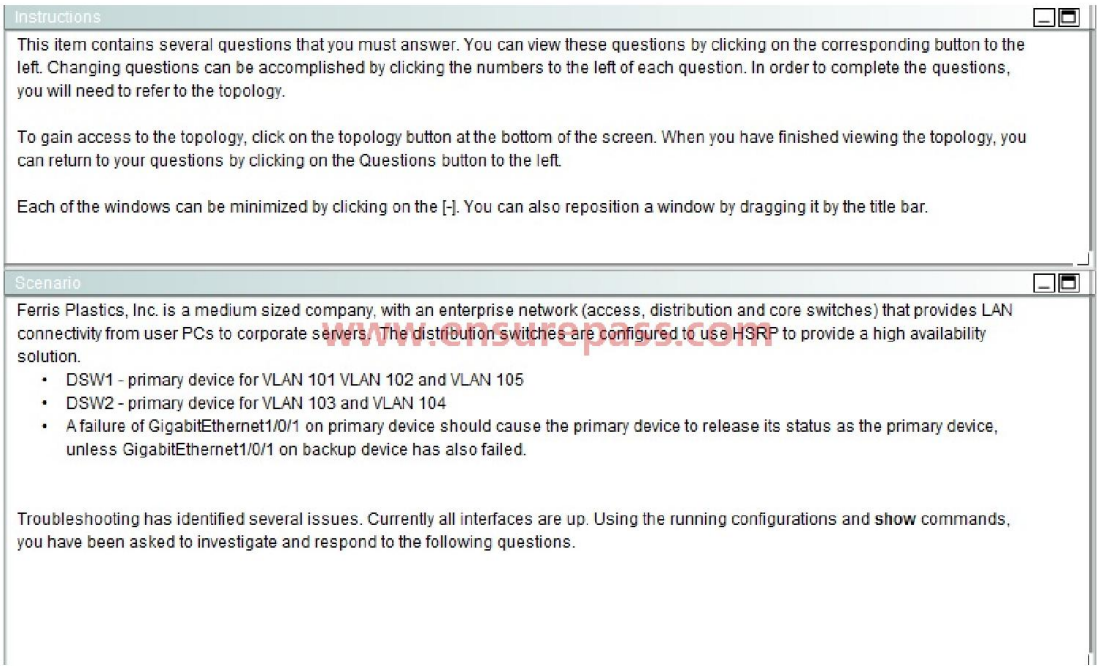
Refer to the exhibit. Which two of the following statements are true? (Choose two)

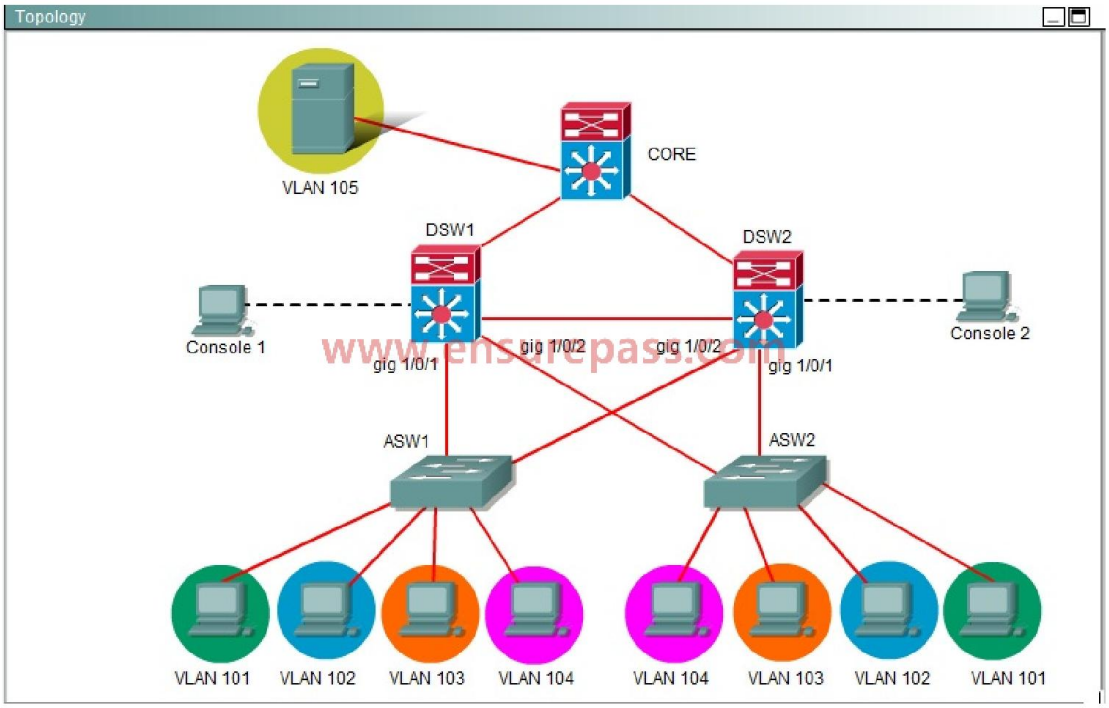
```
Switch#  show ip dhcp snooping
Switch DHCP snooping is enabled
DHCP snooping is configured on following VLANs:
155
Insertion of option 82 is enabled
Interface                    Trusted    Rate limit (pps)
-----------------------      -------    ----------------
FastEthernet0/35             no         3
FastEthernet0/36             no         3
GigabitEthernet0/1           yes        unlimited
Switch#
```

A. DHCP snooping is enabled for 155 VLANs
B. DHCP snooping is enabled for a single VLAN
C. DHCP snooping is not enabled for any VLAN
D. Option 82 is enabled for a VLAN 155
E. Ports Fa0/5 and Fa0/6 should be kept shutdown as these are untrusted ports

Correct Answer: BD

QUESTION 149


Instructions
This item contains several questions that you must answer. You can view these questions by clicking on the corresponding button to the left. Changing questions can be accomplished by clicking the numbers to the left of each question. In order to complete the questions, you will need to refer to the topology.
To gain access to the topology, click on the topology button at the bottom of the screen. When you have finished viewing the topology, you can return to your questions by clicking on the Questions button to the left.
Each of the windows can be minimized by clicking on the [-]. You can also reposition a window by dragging it by the title bar.
Scenario
Ferris Plastics, Inc. is a medium sized company, with an enterprise network (access, distribution and core switches) that provides LAN connectivity from user PCs to corporate servers. The distribution switches are configured to use HSRP to provide a high availability solution.
DSW1 - primary device for VLAN 101 VLAN 102 and VLAN 105
DSW2 - primary device for VLAN 103 and VLAN 104
A failure of GigabitEthernet1/0/1 on primary device should cause the primary device to release its status as the primary device, unless GigabitEthernet1/0/1 on backup device has also failed.
Troubleshooting has identified several issues. Currently all interfaces are up. Using the running configurations and show commands, you have been asked to investigate and respond to the following questions.



Question #1

During routine maintenance, GigabitEthernet1/0/1 on DSW1 was shut down. All other interfaces were up. DSW2 became the active HSRP device for VLAN 101 as desired. However, after GigabitEthernet1/0/1 on DSW1 was reactivated, DSW1 did not become the active router for VLAN 101 as desired. What needs to be done to make the group for VLAN 101 function properly?

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- Enable preempt in the VLAN 101 HSRP group on DSW1.
- Disable preempt in the VLAN 101 HSRP group on DSW2's.
- In the VLAN 101 HSRP group on DSW1, decrease the priority value to a value that is less than the priority value configured in the VLAN 101 HSRP group on DSW2.
- Decrease the decrement value in the track command for the VLAN 101 HSRP group on DSW1's to a values less than the value in the track command for the VLAN 101 HSRP group on DSW2.

Correct Answer: A

QUESTION 150

Instructions

This item contains several questions that you must answer. You can view these questions by clicking on the corresponding button to the left. Changing questions can be accomplished by clicking the numbers to the left of each question. In order to complete the questions, you will need to refer to the topology.

To gain access to the topology, click on the topology button at the bottom of the screen. When you have finished viewing the topology, you can return to your questions by clicking on the Questions button to the left.

Each of the windows can be minimized by clicking on the [-]. You can also reposition a window by dragging it by the title bar.

Scenario

Ferris Plastics, Inc. is a medium sized company, with an enterprise network (access, distribution and core switches) that provides LAN connectivity from user PCs to corporate servers. The distribution switches are configured to use HSRP to provide a high availability solution.

- DSW1 - primary device for VLAN 101 VLAN 102 and VLAN 105
- DSW2 - primary device for VLAN 103 and VLAN 104
- A failure of GigabitEthernet1/0/1 on primary device should cause the primary device to release its status as the primary device, unless GigabitEthernet1/0/1 on backup device has also failed.

Troubleshooting has identified several issues. Currently all interfaces are up. Using the running configurations and **show** commands, you have been asked to investigate and respond to the following questions.

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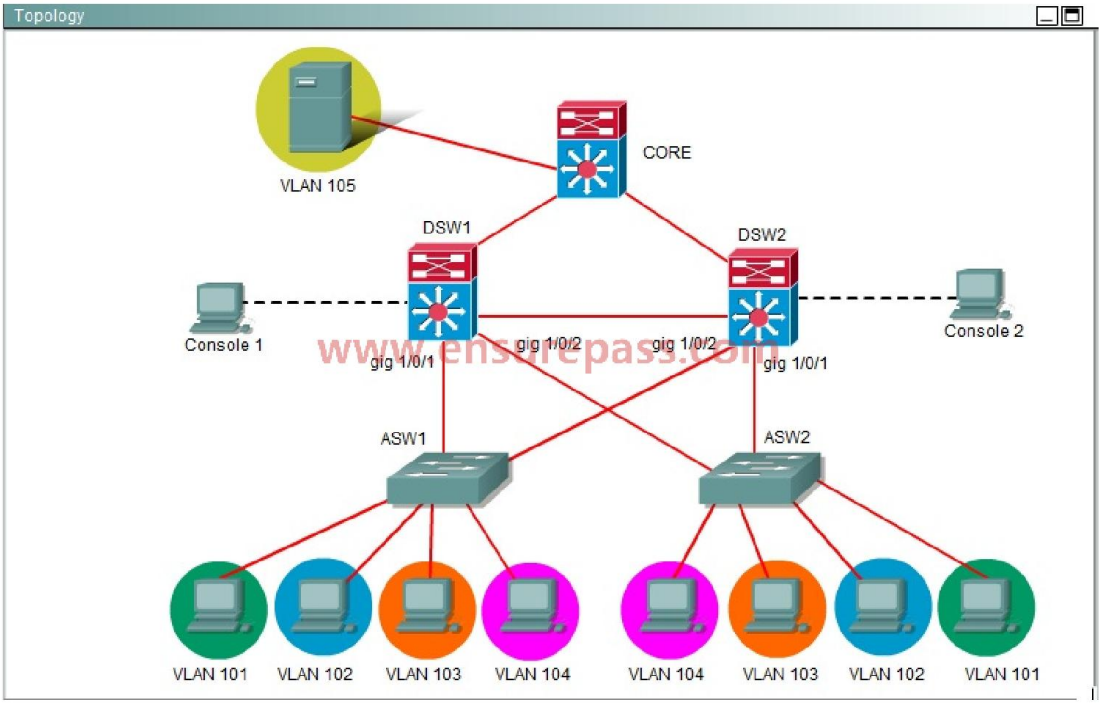
Topology



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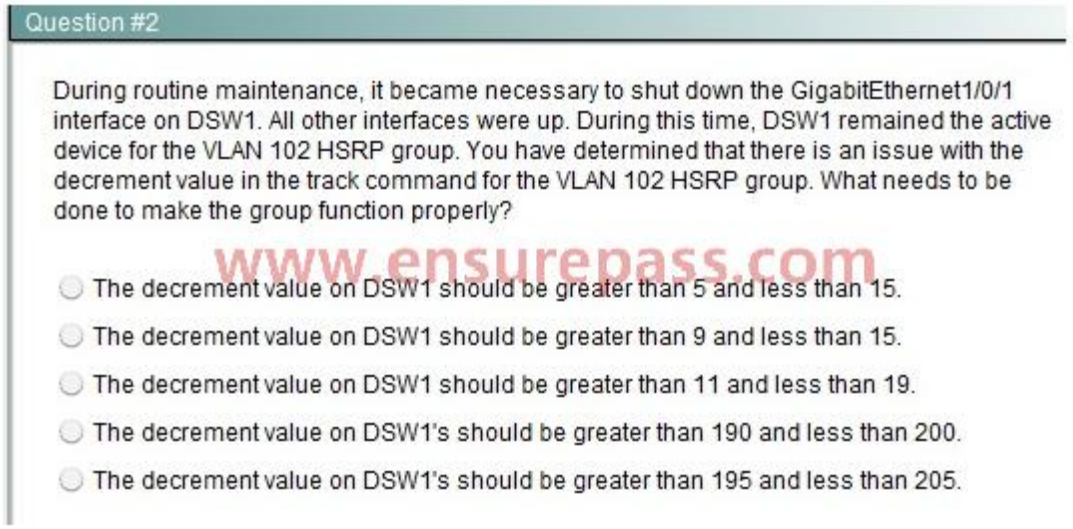
Question #2
During routine maintenance, it became necessary to shut down the GigabitEthernet1/0/1 interface on DSW1. All other interfaces were up. During this time, DSW1 remained the active device for the VLAN 102 HSRP group. You have determined that there is an issue with the decrement value in the track command for the VLAN 102 HSRP group. What needs to be done to make the group function properly?
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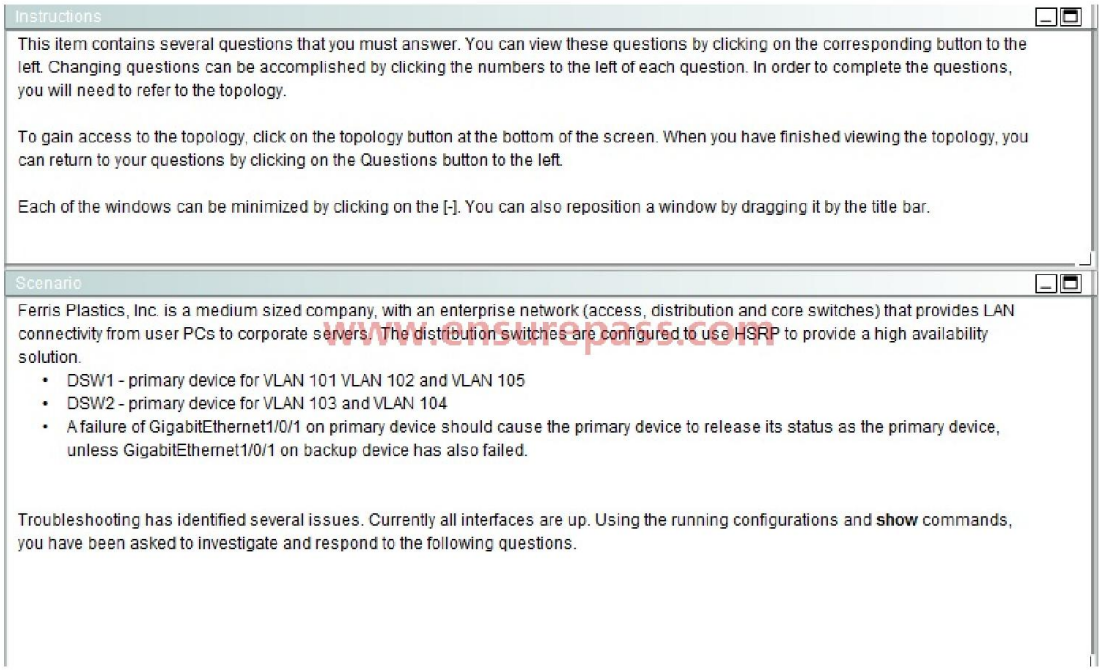
The decrement value on DSW1 should be greater than 5 and less than 15.
The decrement value on DSW1 should be greater than 9 and less than 15.
The decrement value on DSW1 should be greater than 11 and less than 19.
The decrement value on DSW1's should be greater than 190 and less than 200.
The decrement value on DSW1's should be greater than 195 and less than 205.

Correct Answer: C

QUESTION 151


Instructions
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Scenario
Ferris Plastics, Inc. is a medium sized company, with an enterprise network (access, distribution and core switches) that provides LAN connectivity from user PCs to corporate servers. The distribution switches are configured to use HSRP to provide a high availability solution.
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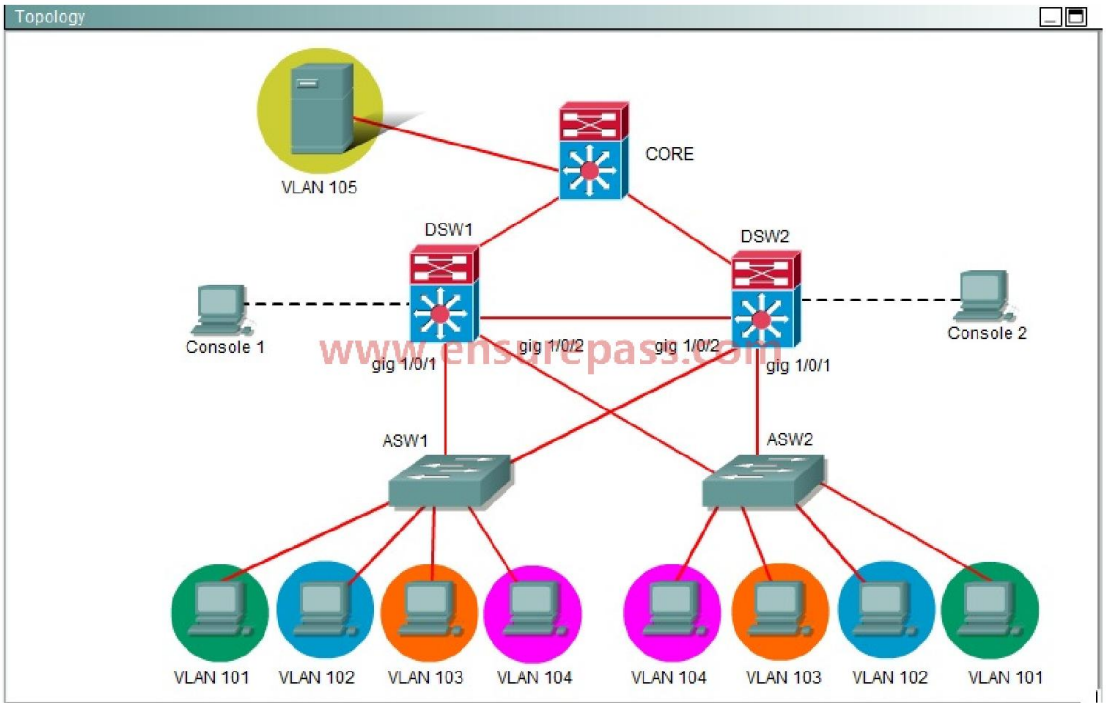
DSW1 - primary device for VLAN 101 VLAN 102 and VLAN 105
DSW2 - primary device for VLAN 103 and VLAN 104
A failure of GigabitEthernet1/0/1 on primary device should cause the primary device to release its status as the primary device, unless GigabitEthernet1/0/1 on backup device has also failed.
Troubleshooting has identified several issues. Currently all interfaces are up. Using the running configurations and show commands, you have been asked to investigate and respond to the following questions.



Question #3

All interfaces are active. DSW2 has not become the active device for the VLAN 103 HSRP group. As related to the VLAN 103 HSRP group, what can be done to make the group function properly?

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- On DSW1, disable preempt.
- On DSW1, decrease the priority value to a value less than 190 and greater than 150.
- On DSW2, increase the priority value to a value greater 200 and less than 250.
- On DSW2, increase the decrement value in the track command to a value greater than 10 and less than 50.

Correct Answer: B

QUESTION 152

Instructions

This item contains several questions that you must answer. You can view these questions by clicking on the corresponding button to the left. Changing questions can be accomplished by clicking the numbers to the left of each question. In order to complete the questions, you will need to refer to the topology.

To gain access to the topology, click on the topology button at the bottom of the screen. When you have finished viewing the topology, you can return to your questions by clicking on the Questions button to the left.

Each of the windows can be minimized by clicking on the [-]. You can also reposition a window by dragging it by the title bar.

Scenario

Ferris Plastics, Inc. is a medium sized company, with an enterprise network (access, distribution and core switches) that provides LAN connectivity from user PCs to corporate servers. The distribution switches are configured to use HSRP to provide a high availability solution.

- DSW1 - primary device for VLAN 101 VLAN 102 and VLAN 105
- DSW2 - primary device for VLAN 103 and VLAN 104
- A failure of GigabitEthernet1/0/1 on primary device should cause the primary device to release its status as the primary device, unless GigabitEthernet1/0/1 on backup device has also failed.

Troubleshooting has identified several issues. Currently all interfaces are up. Using the running configurations and **show** commands, you have been asked to investigate and respond to the following questions.

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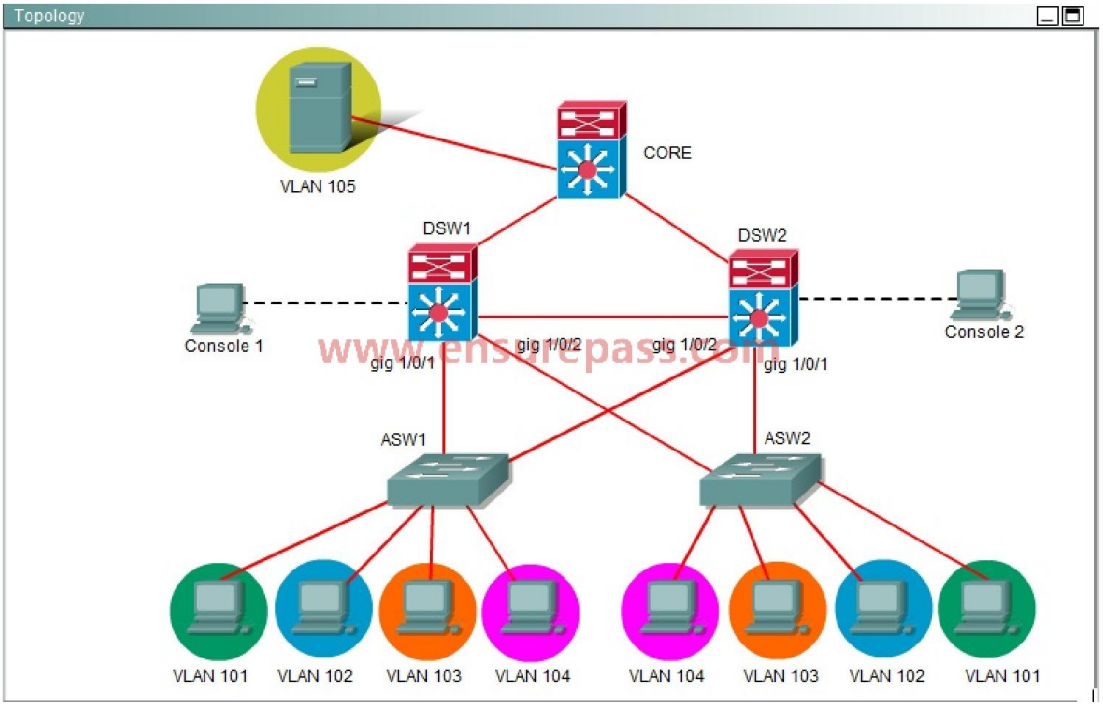
Topology



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Question #4

During routine maintenance, it became necessary to shut down the GigabitEthernet1/0/1 interface on DSW1 and DSW2. All other interfaces were up. During this time, DSW1 became the active router for the VLAN 104 HSRP group. As related to the VLAN 104 HSRP group, what can to be done to make the group function properly?

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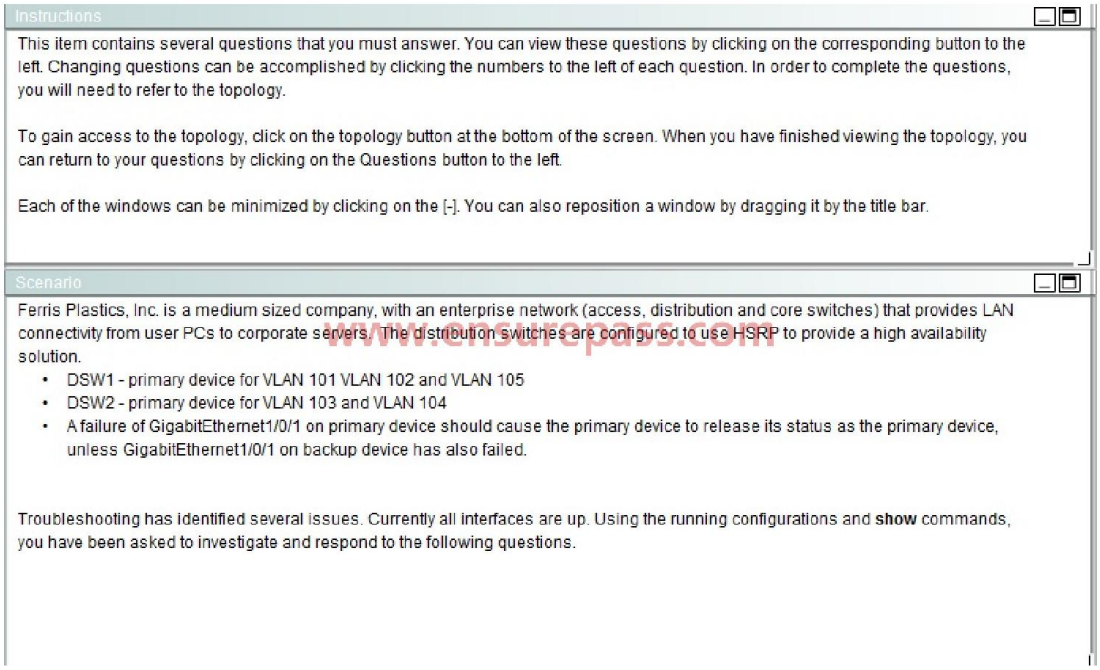
- On DSW1, disable preempt.
- On DSW2 decrease the priority value to a value less than 150.
- On DSW1, increase the decrement value in the track command to a value greater than 6.
- On DSW1, decrease the decrement value in the track command to a value less than 1.

Correct Answer: C

QUESTION 153


Instructions
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DSW1 - primary device for VLAN 101 VLAN 102 and VLAN 105
DSW2 - primary device for VLAN 103 and VLAN 104
A failure of GigabitEthernet1/0/1 on primary device should cause the primary device to release its status as the primary device, unless GigabitEthernet1/0/1 on backup device has also failed.
Troubleshooting has identified several issues. Currently all interfaces are up. Using the running configurations and show commands, you have been asked to investigate and respond to the following questions.

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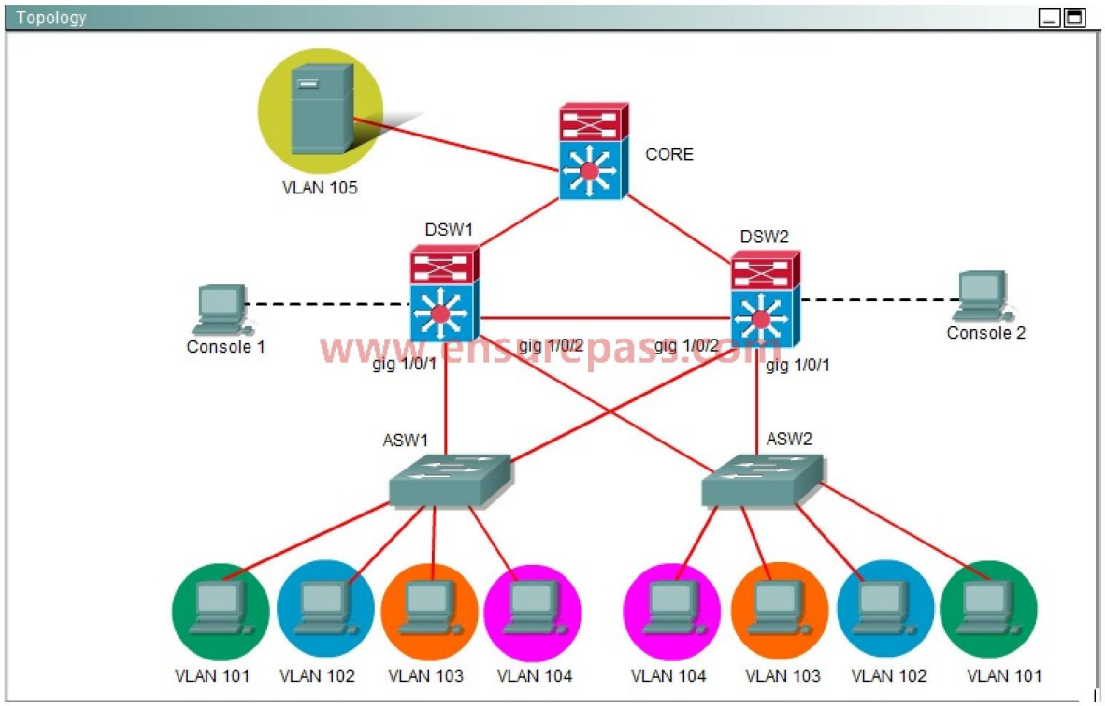

Question #5

What is the priority value of the VLAN 105 HSRP group on DSW2?

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- 50
- 100
- 150
- 200

Correct Answer: B

QUESTION 154

Instructions

This item contains several questions that you must answer. You can view these questions by clicking on the corresponding button to the left. Changing questions can be accomplished by clicking the numbers to the left of each question. In order to complete the questions, you will need to refer to the topology.

To gain access to the topology, click on the topology button at the bottom of the screen. When you have finished viewing the topology, you can return to your questions by clicking on the Questions button to the left.

Each of the windows can be minimized by clicking on the [-]. You can also reposition a window by dragging it by the title bar.

Scenario

Ferris Plastics, Inc. is a medium sized company, with an enterprise network (access, distribution and core switches) that provides LAN connectivity from user PCs to corporate servers. The distribution switches are configured to use HSRP to provide a high availability solution.

- DSW1 - primary device for VLAN 101 VLAN 102 and VLAN 105
- DSW2 - primary device for VLAN 103 and VLAN 104
- A failure of GigabitEthernet1/0/1 on primary device should cause the primary device to release its status as the primary device, unless GigabitEthernet1/0/1 on backup device has also failed.

Troubleshooting has identified several issues. Currently all interfaces are up. Using the running configurations and **show** commands, you have been asked to investigate and respond to the following questions.

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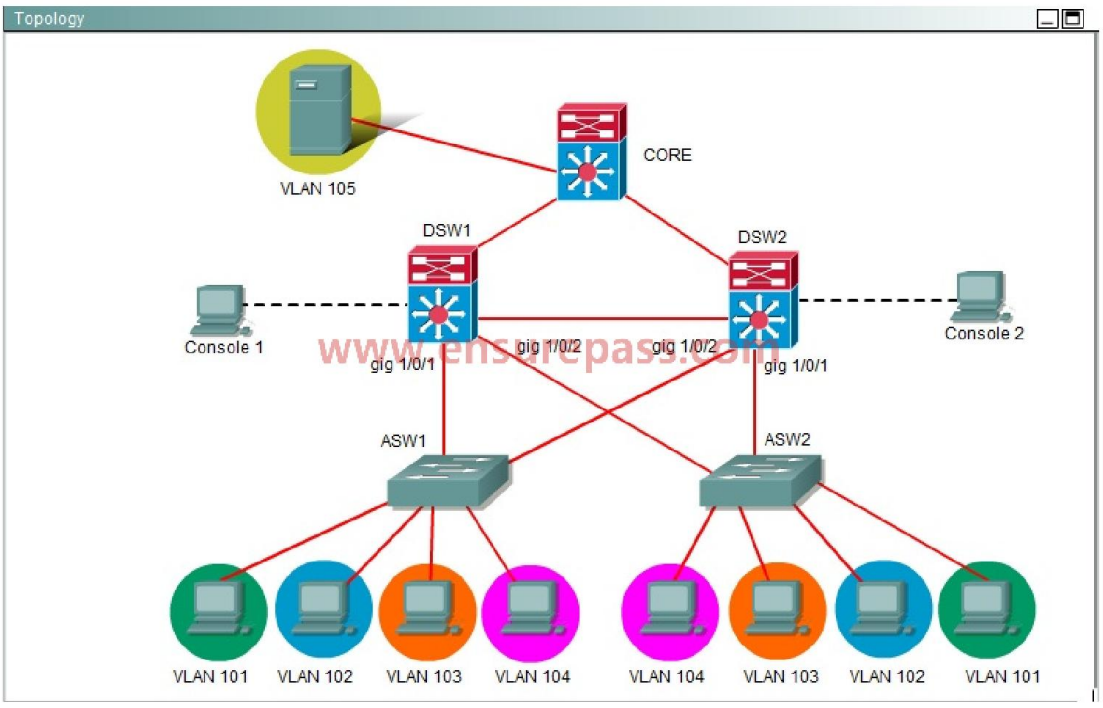
Topology



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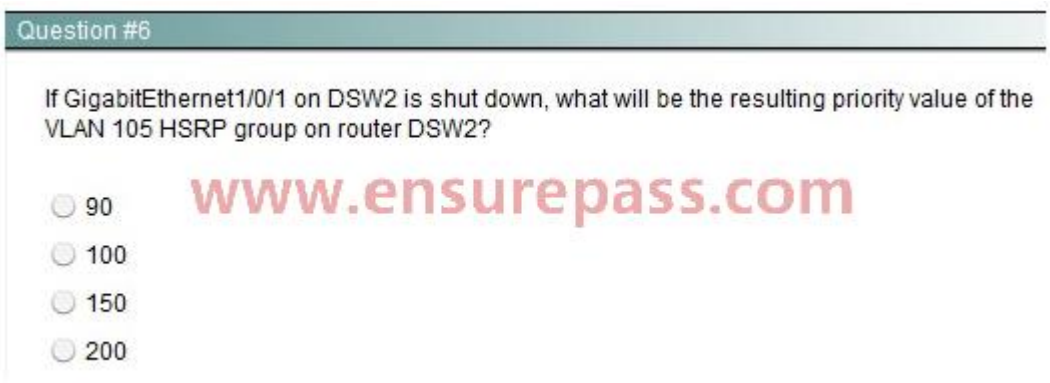
Question #6
If GigabitEthernet1/0/1 on DSW2 is shut down, what will be the resulting priority value of the VLAN 105 HSRP group on router DSW2?
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90
100
150
200

Correct Answer: A

QUESTION 155

Which three statements about the Multiple Spanning Tree (MST) protocol (IEEE 802.1s) are true? (Choose three.)

A. An MST region is a group of MST switches that appear as a single virtual bridge to adjacent CST and MST regions.
B. All switches in an MST region, except distribution layer switches, should have their priority lowered from the default value 32768.
C. All switches in the same MST region must have the same VLAN-to-instance mapping, but different configuration revision numbers.
D. Enabling MST with the spanning-tree mode mst global configuration command also enables RSTP.
E. To verify the MST configuration, the show pending command can be used in MST configuration mode.
F. When RSTP and MSTP are configured, UplinkFast and BackboneFast must also be enabled.

Correct Answers: ADE

QUESTION 156

A client is searching for an access point (AP). What is the correct process order that the client and access point go through to create a connection?

A. probe request/response, authentication request/response, association request/response
B. association request/response, authentication request/response, probe request/response
C. probe request/response, association request/response, authentication request/response
D. association request/response, probe request/response, authentication request/response

Correct Answers: A

QUESTION 157

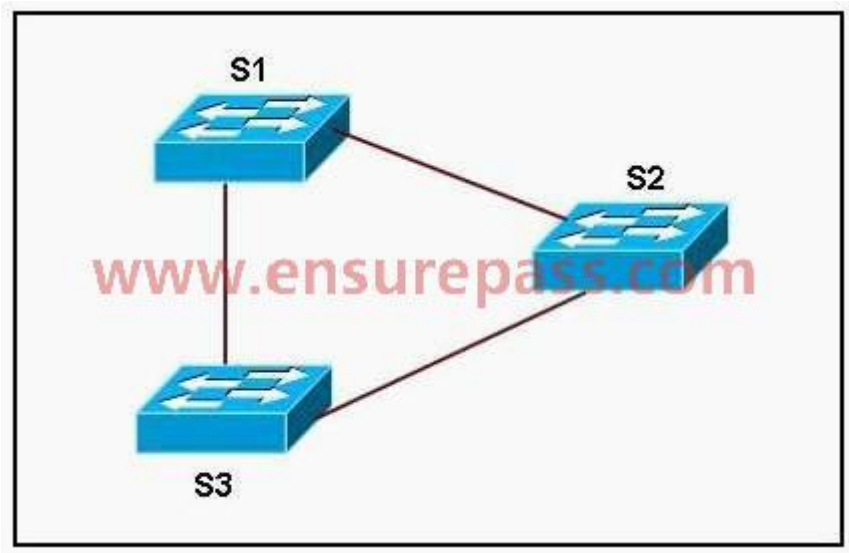
Which three features are part of the Cisco Compatible Extensions program? (Choose three.)

A. security
B. routing and switching
C. VLAN and QoS
D. analog and digital voice
E. accounting
F. mobility

Correct Answers: ACF

QUESTION 158

Refer to the exhibit. Switch S2 contains the default configuration. Switches S1 and S3 both have had the command spanning-tree mode rapid-pvst issued on them. What will be the result?



A. Switches S1 and S3 will be able to exchange traffic but neither will be able to exchange traffic with Switch S2
B. Switches S1, S2, and S3 will be able to pass traffic between themselves. However, if there is a topology change, Switch S2 will not receive notification of the change.
C. Switches S1, S2, and S3 will be able to pass traffic between themselves.
D. IEEE 802.1D and IEEE 802.1w are incompatible. All three switches must use the same standard or no traffic will pass between any of the switches.

Correct Answers: C

QUESTION 159

Which statement is true about IP telephony calls?

A. A Voice over IP (VoIP) packet consists of the voice payload, IP header, TCP header, RTP header, and Layer 2 link header.
B. The voice carrier stream uses H.323 to set up, maintain, and tear down call endpoints.
C. Call control signaling uses Real-Time Transport Protocol (RTP) packets that contain actual voice samples.
D. The sum of bandwidth necessary for each major application, including voice, video, and data, should not exceed 75 percent of the total available bandwidth for each link.

Correct Answers: D

QUESTION 160

Examine the router output above. Which two items are correct? (Choose two.)

```
RouterA# show standby

Ethernet0/1 - Group 1
  State is Active
    2 state changes, last state change 00:30:59
  Virtual IP address is 10.1.0.20
    Secondary virtual IP address 10.1.0.21
  Active virtual MAC address is 0004.4d82.7981
    Local virtual MAC address is 0004.4d82.7981 (bia)
  Hello time 4 sec, hold time 12 sec
    Next hello sent in 1.412 secs
  Preemption enabled, min delay 50 sec, sync delay 40 sec
  Active router is local
  Standby router is 10.1.0.6, priority 75 (expires in 9.184 sec)
  Priority 95 (configured 120)
    Tracking 2 objects, 0 up
      Down Interface Ethernet0/2, pri 15
      Down Interface Ethernet0/3
  IP redundancy name is "HSRP1", advertisement interval is 34 sec
```

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A. Router A will assume the active state if its priority is the highest.
B. If Ethernet 0/2 goes down, the standby router will take over.
C. When Ethernet 0/3 of RouterA comes back up, the priority will become 105.
D. The local IP address of Router A is 10.1.0.6.
E. The local IP address of Router A is 10.1.0.20.

Correct Answers: AC

QUESTION 161

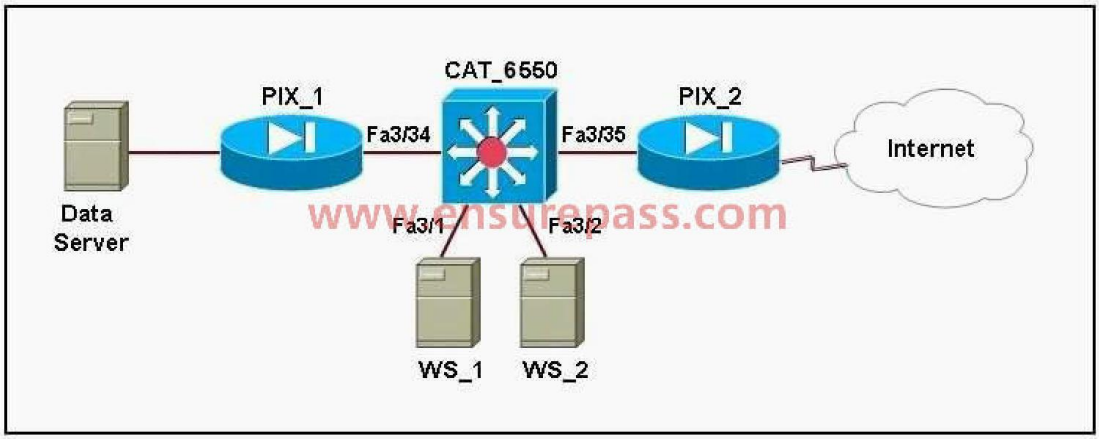
In the use of 802.1X access control, which three protocols are allowed through the switch port before authentication takes place? (Choose three.)

A. STP
B. CDP
C. EAP MD5
D. TACACS+
E. EAP-over-LAN
F. protocols not filtered by an ACL

Correct Answers: ABE

QUESTION 162

Refer to the exhibit. The web servers WS_1 and WS_2 need to be accessed by external and internal users. For security reasons, the servers should not communicate with each other, although they are located on the same subnet. The servers do need, however, to communicate with a database server located in the inside network. What configuration will isolate the servers from each other?



A. The switch ports 3/1 and 3/2 will be defined as secondary VLAN isolated ports. The ports connecting to the two firewalls will be defined as primary VLAN promiscuous ports.
B. The switch ports 3/1 and 3/2 will be defined as secondary VLAN community ports. The ports connecting to the two firewalls will be defined as primary VLAN promiscuous ports.
C. The switch ports 3/1 and 3/2 and the ports connecting to the two firewalls will be defined as primary VLAN promiscuous ports.
D. The switch ports 3/1 and 3/2 and the ports connecting to the two firewalls will be defined as primary VLAN community ports.

Correct Answers: A

QUESTION 163

Under what circumstances should an administrator prefer local VLANs over end-to-end VLANs?

A. Eighty percent of traffic on the network is destined for Internet sites.
B. There are common sets of traffic filtering requirements for workgroups located in multiple buildings.
C. Eighty percent of a workgroup's traffic is to the workgroup's own local server.
D. Users are grouped into VLANs independent of physical location.
E. None of the other alternatives apply

Correct Answer: A

QUESTION 164
What are some virtues of implementing end-to-end VLANs? (Choose two)

A. End-to-end VLANs are easy to manage.
B. Users are grouped into VLANs independent of a physical location.
C. Each VLAN has a common set of security and resource requirements for all members.
D. Resources are restricted to a single location.

Correct Answer: BC

QUESTION 165
Which of the following statements is true about the 80/20 rule (Select all that apply)?

A. 20 percent of the traffic on a network segment should be local
B. no more than 20 percent of the network traffic should be able to move across a backbone
C. no more than 80 percent of the network traffic should be able to move across a backbone
D. 80 percent of the traffic on a network segment should be local

Correct Answer: BD

QUESTION 166
The DAI feature has been implemented in the ACME switched LAN. Which three statements are true about the dynamic ARP inspection (DAI) feature? (Select three)

A. DAI can be performed on ingress ports only.
B. DAI can be performed on both ingress and egress ports.
C. DAI is supported on access ports, trunk ports, EtherChannel ports, and private VLAN ports.
D. DAI should be enabled on the root switch for particular VLANs only in order to secure the ARP caches of hosts in the domain.
E. DAI should be configured on all access switch ports as untrusted and on all switch ports

connected to other switches as trusted.

F. DAI is supported on access and trunk ports only.

Correct Answer: ACE

QUESTION 167

You are implementing basic switch security best practices. Which of these is a tactic that you can use to mitigate compromises from being launched through the switch?

A. Make all ports private VLAN ports.
B. Place all unused ports in native VLAN 1 until needed.
C. Proactively configure unused switch ports as access ports.
D. Disable Cisco Discovery Protocol globally.

Correct Answer: C

QUESTION 168

The Company LAN is becoming saturated with broadcasts and multicast traffic. What could you do to help a network with many multicasts and broadcasts?

A. Creating smaller broadcast domains by implementing VLANs.
B. Separate nodes into different hubs.
C. Creating larger broadcast domains by implementing VLANs.
D. Separate nodes into different switches.
E. All of the above.

Correct Answer: A

QUESTION 169

You are the network administrator tasked with designing a switching solution for the Company network. Which of the following statements describing trunk links are INCORRECT? (Select all that apply)

A. The trunk link belongs to a specific VLAN.
B. Multiple trunk links are used to connect multiple end user devices.
C. A trunk link only supports native VLAN.
D. Trunk links use 802.10 to identify a VLAN.
E. The native VLAN of the trunk link is the VLAN that the trunk uses for untagged packets.

Correct Answer: ABCD

QUESTION 170

Which of the following specifications is a companion to the IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) algorithm, and warrants the use multiple spanning-trees?

A. IEEE 802.1s (MST)
B. IEEE 802.1Q (CST)
C. Cisco PVST+
D. IEEE 802.1d (STP)
E. None of the other alternatives apply

Correct Answer: A

QUESTION 171
Which of the following specification will allow you to: associate VLAN groups to STP instances so you can provide multiple forwarding paths for data traffic and enable load balancing?

A. IEEE 802.1d (STP)
B. IEEE 802.1s (MST)
C. IEEE 802.1Q (CST)
D. IEEE 802.1w (RSTP)

Correct Answer: B

QUESTION 172
Which three items are configured in MST configuration submode? (Select three)

A. Region name
B. Configuration revision number
C. VLAN instance map
D. IST STP BPDU hello timer
E. CST instance map
F. PVST+ instance map

Correct Answer: ABC

QUESTION 173
By default, all VLANs will belong to which MST instance when using Multiple STP?

A. MST00
B. MST01
C. the last MST instance configured
D. none

Correct Answer: A

QUESTION 174

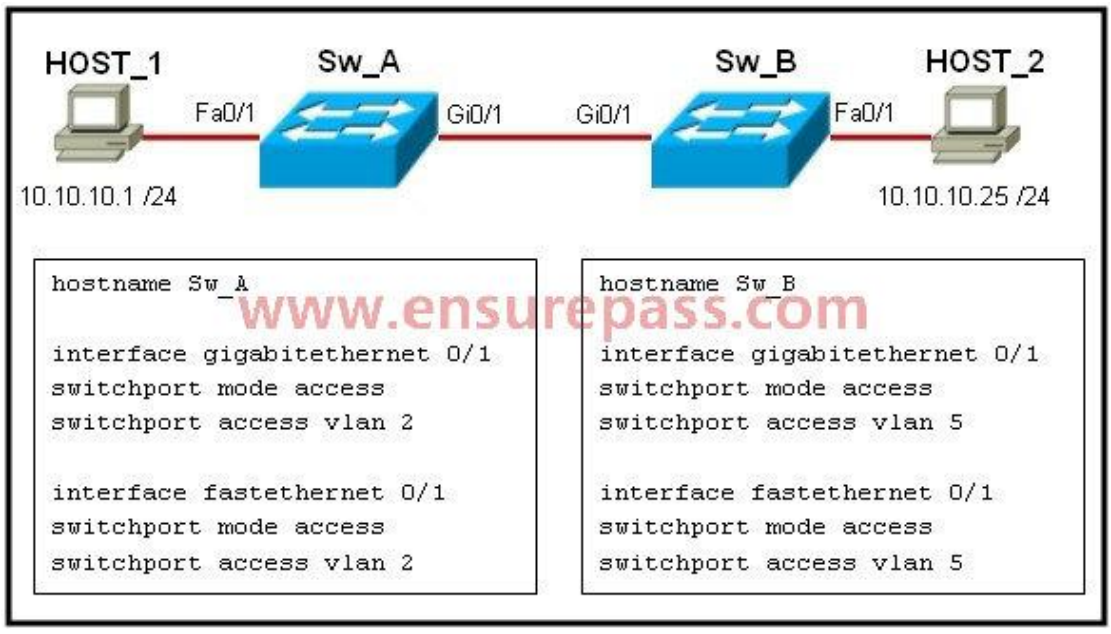
Which MST configuration statement is correct?

A. MST configurations can be propagated to other switches using VTP.
B. After MST is configured on a Switch, PVST+ operations will also be enabled by default.
C. MST configurations must be manually configured on each switch within the MST region.
D. MST configurations only need to be manually configured on the Root Bridge.
E. MST configurations are entered using the VLAN Database mode on Cisco Catalyst switches.

Correct Answer: C

QUESTION 175

Given the configurations on SwitchA and SwitchB, which statement is true?



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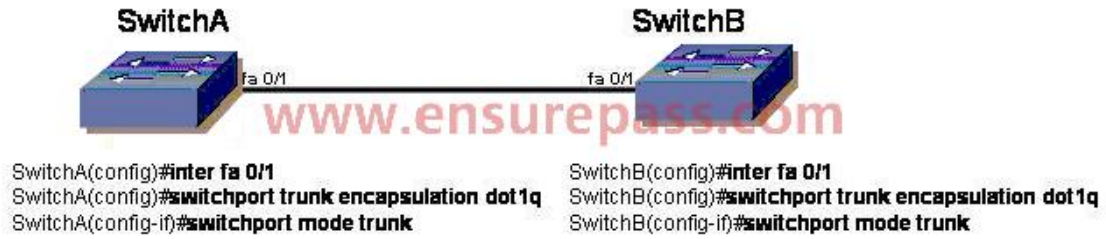
A. The link is set to auto-negotiate trunking, and it will automatically become a trunk link unless configured otherwise.
B. The link is a trunking link and by default all VLANs will be transmitted across this trunk.
C. The link is prevented from generating DTP frames, turning the Negotiation of Trunking off.
D. The link is not a trunk link so both interfaces must be on the same VLAN and only that single VLAN is transmitted across the link.

Correct Answer: D

QUESTION 176

Given the configurations on SwitchA and SwitchB, which two statements are true? (Choose two.)



A. The trunk is currently using the ISL trunking protocol.
B. The trunk is currently using the 802.1q trunking protocol.
C. By default, the trunk can only support one VLAN, and only that single VLAN is transmitted across the trunk.
D. By default, all VLANs will be transmitted across this trunk.
E. By default, SwitchA and SwitchB's Fast Ethernet 0/1 port will not generate DTP messages.

Correct Answer: BD

QUESTION 177

A network administrator enters the following switch commands:

Switch(config)#interface range fa0/0-5
Switch(config-if-range)#switchport access vlan 2

What is the result of these commands?

A. Two new vlans are created on six switch ports
B. One new vlan is created on five switch ports
C. Six new vlans are created on six switch ports
D. One new vlan is created with the vlan number 2

Correct Answer: D

QUESTION 178

When a VLAN port configured as a trunk receives an untagged frame, what will happen?

A. The frame will be dropped.
B. The frame will cause an error message to be sent.

C. The frame will be processed as a native VLAN frame.
D. The frame will first be tagged, then processed as a native VLAN frame.

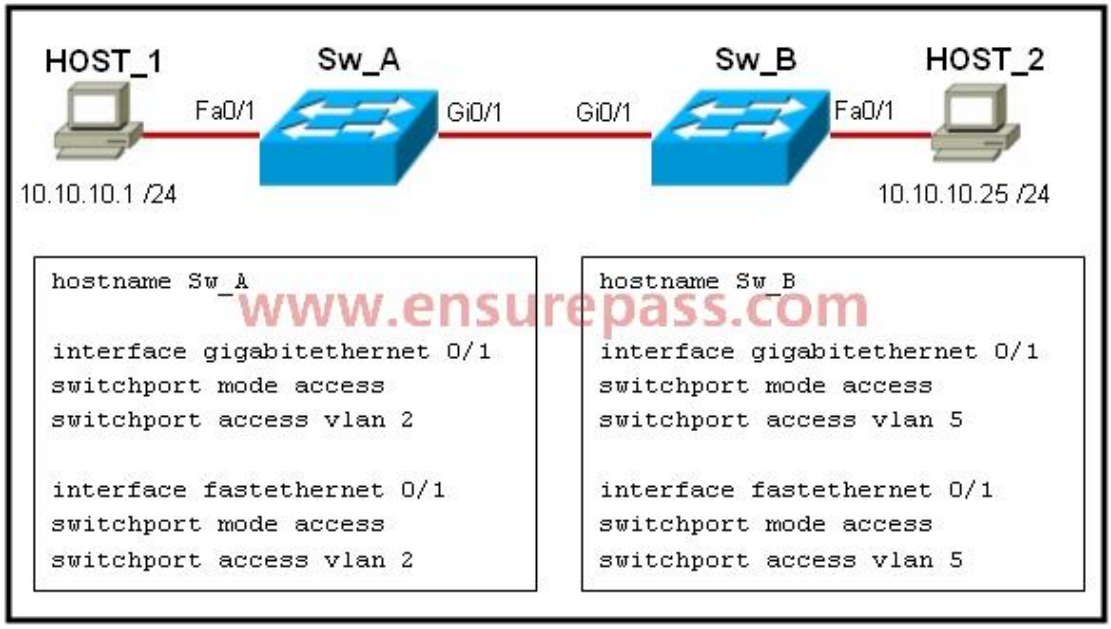
Correct Answer: C

QUESTION 179
By default, which statement is correct when an IEEE 802.1Q trunk port receives an untagged frame?

A. The frame is considered in the native VLAN and forwarded to the ports associated with that VLAN.
B. The frame is encapsulated and tagged as in the native VLAN.
C. The frame is broadcast on all ports regardless of VLAN association.
D. The frame is dropped.

Correct Answer: A

QUESTION 180
Refer to the exhibit. Both host stations are part of the same subnet but are in different VLANs. On the basis of the information presented in the exhibit, which statement is true about an attempt to ping from host to host?



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A. A trunk port will need to be configured on the link between Sw_A and Sw_B for the ping command to be successful.
B. The two different hosts will need to be in the same VLAN in order for the ping command to be

successful.

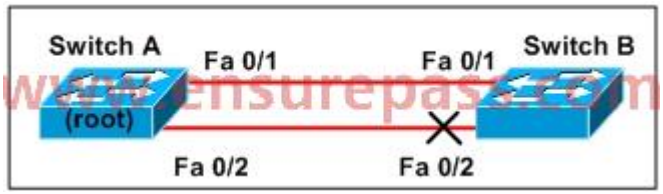
C. A Layer 3 device is needed for the ping command to be successful.

D. The ping command will be successful without any further configuration changes.

Correct Answer: A

QUESTION 181

Refer to the exhibit. VLAN 1 and VLAN 2 are configured on the trunked links between Switch A and Switch B. Port Fa 0/2 on Switch B is currently in a blocking state for both VLANs. What should be done to load balance VLAN traffic between Switch A and Switch B?



A. Lower the port priority for VLAN 1 on port 0/1 for Switch A.

B. Lower the port priority for VLAN 1 on port 0/2 for Switch A.

C. Make the bridge ID of Switch B lower than the ID of Switch A.

D. Enable HSRP on the access ports.

Correct Answer: B

QUESTION 182

Which trunking protocol inserts a four byte tag into the Ethernet frame and recalculates the CRC value?

A. VTP

B. 802.1Q

C. DTP

D. ISL

Correct Answer: B

QUESTION 183

Which three statements apply to access control of both bridged and routed traffic for VLANs? (Choose three.)

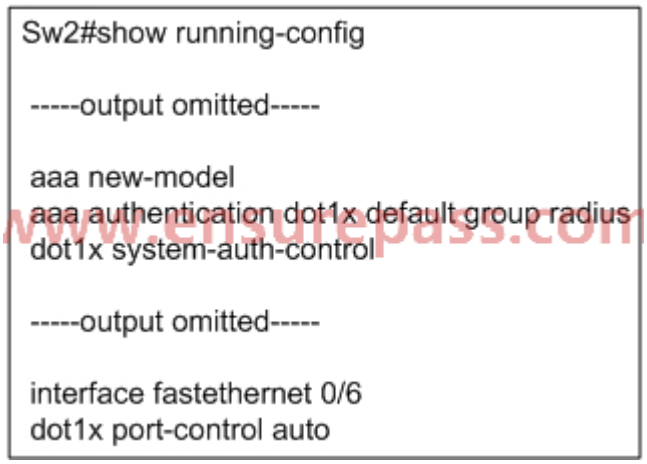
A. Router ACLs can be applied to the input and output directions of a VLAN interface.

B. Bridged ACLs can be applied to the input and output directions of a VLAN interface.

C. Only router ACLs can be applied to a VLAN interface.
D. VLAN maps can be applied to a VLAN interface.
E. VLAN maps and router ACLs can be used in combination.

Correct Answer: ACE

QUESTION 184
Refer to the exhibit. Which statement is true about the show running-config output?



A. Sw2 is configured for switch-based authentication using RADIUS.
B. Interface FastEthernet0/6 is configured with a SmartPort macro using RADIUS.
C. Interface FastEthernet0/6 is configured for 802.1X Authenticated Trunking Protocol (ATP).
D. Interface FastEthernet0/6 is configured for port-based traffic control.
E. Interface FastEthernet0/6 is configured for port-based authentication.

Correct Answer: E

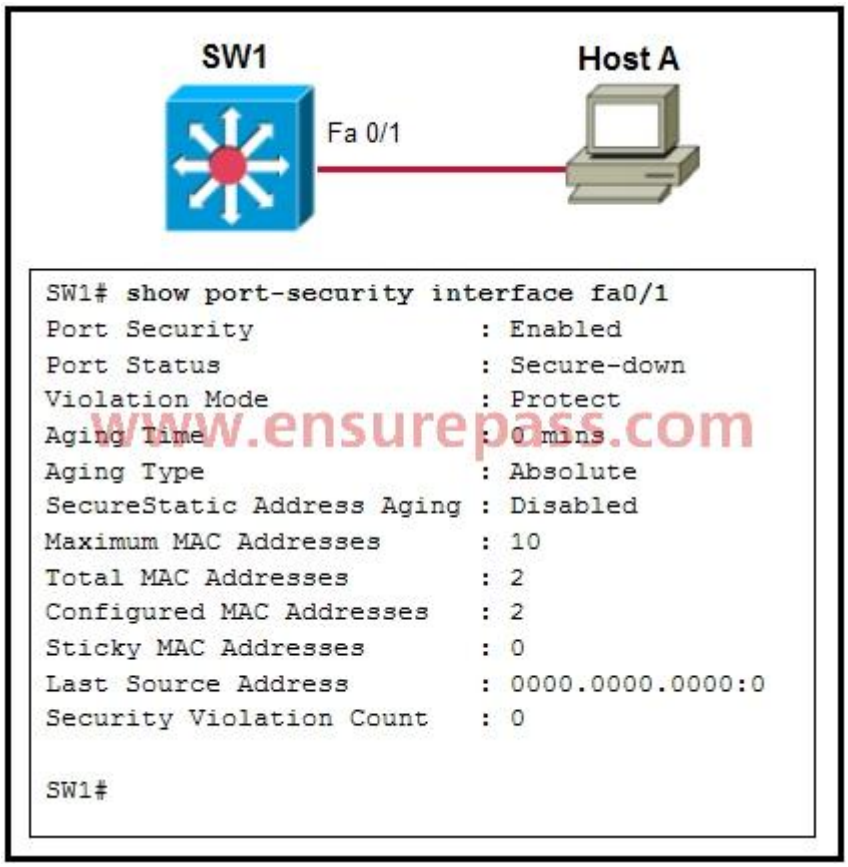
QUESTION 185
What is a characteristic of a VLAN map that does not contain a match clause?

A. implicit deny feature at end of list
B. implicit forward feature at end of list
C. can only be implemented by the input direction within the VLAN
D. can only be implemented by the output direction within the VLAN

Correct Answer: B

QUESTION 186

Refer to the exhibit. The show port-security interface fa0/1 command was issued on switch SW1. Given the output that was generated, which two security statement are true? (Choose two.)



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A. Interface FastEthernet 0/1 was configured with the switchport port-security aging command.
B. Interface FastEthernet 0/1 was configured with the switchport port-security protect command.
C. Interface FastEthernet 0/1 was configured with the switchport port-security violation restrict command.
D. When the number of secure IP addresses reaches 10, the interface will immediately shut down.
E. When the number of secure MAC addresses reaches 10, packets from unknown MAC addresses will be dropped.

Correct Answer: BE

QUESTION 187

What is the method used to filter traffic being bridged within a VLAN?

A. Ethernet maps
B. router ACLs
C. VLAN maps

D. IP ACLs

Correct Answer: C

QUESTION 188
What are three possible router states of HSRP routers on a LAN? (Choose three.)

A. standby
B. established
C. active
D. idle
E. backup
F. initial

Correct Answer: ACF

QUESTION 189
Which statement describes Virtual Router Redundancy Protocol (VRRP)?

A. A VRRP group has one master and at least one standby virtual router.
B. A VRRP group has one master and one or more backup virtual routers.
C. A VRRP group has one active and one or more standby virtual routers.
D. A VRRP group has one active and one backup virtual router.

Correct Answer: B

QUESTION 190
What three tasks will a network administrator perform to successfully configure Hot Standby Routing Protocol (HSRP)? (Choose three.)

A. Define the encapsulation type
B. Define the standby router
C. Define the standby IP address
D. Enable the standby mode
E. Enable HSRP

Correct Answer: BCE

QUESTION 191

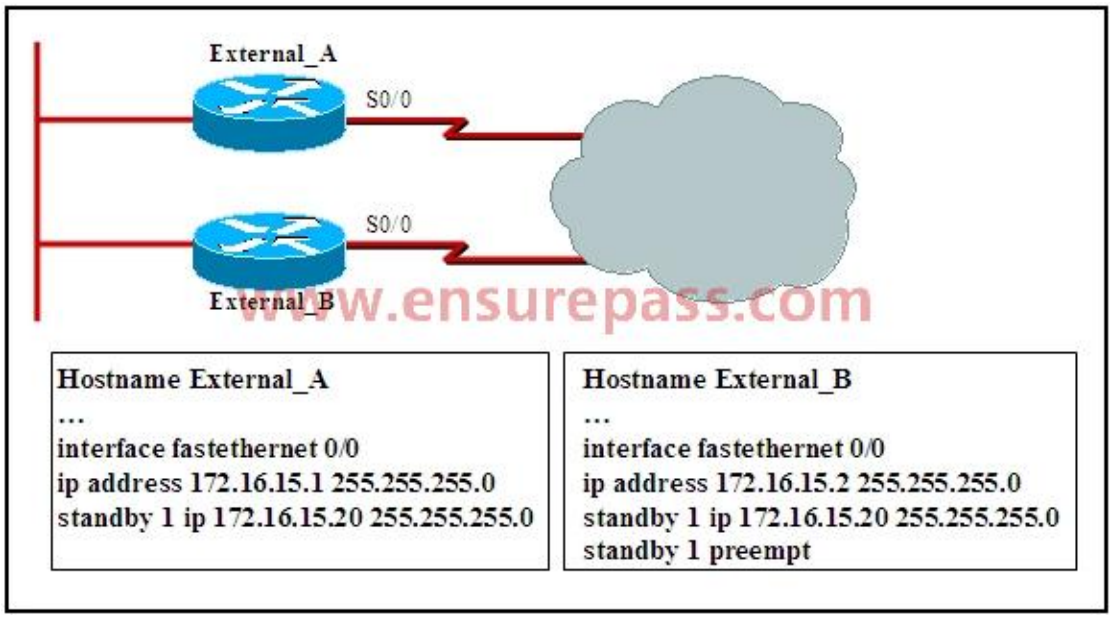
Which three protocols have been developed for IP routing redundancy to protect against first-hop router failure? (Choose three.)

A. HSRP
B. MSTP
C. ICMP
D. VRRP
E. GLBP

Correct Answer: ADE

QUESTION 192

Which command will ensure that External_B will be the primary router for traffic using the gateway address of 172.16.15.20?



A. On External_B add the command standby 1 priority 80.
B. On External_A add the command standby 1 priority 110.
C. On External_A add the command standby 1 priority 80.
D. On External_B remove the command standby 1 preempt.

Correct Answer: C

QUESTION 193

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300-206	640-816	BR0-002	SG0-001	1Z0-053	VCP550	C4030-670
300-207	640-822	CAS-001	SG1-001	1Z0-060	VCAC510	C4040-221
300-208	640-864	CLO-001	SK0-002	1Z0-474	VCP5-DCV	RedHat
350-018	642-467	ISS-001	SK0-003	1Z0-482	VCP510PSE	EX200
352-001	642-813	JK0-010	SY0-101	1Z0-485		EX300
400-101	642-902	JK0-801	SY0-301	1Z0-580		
640-461	700-302			1Z0-820		